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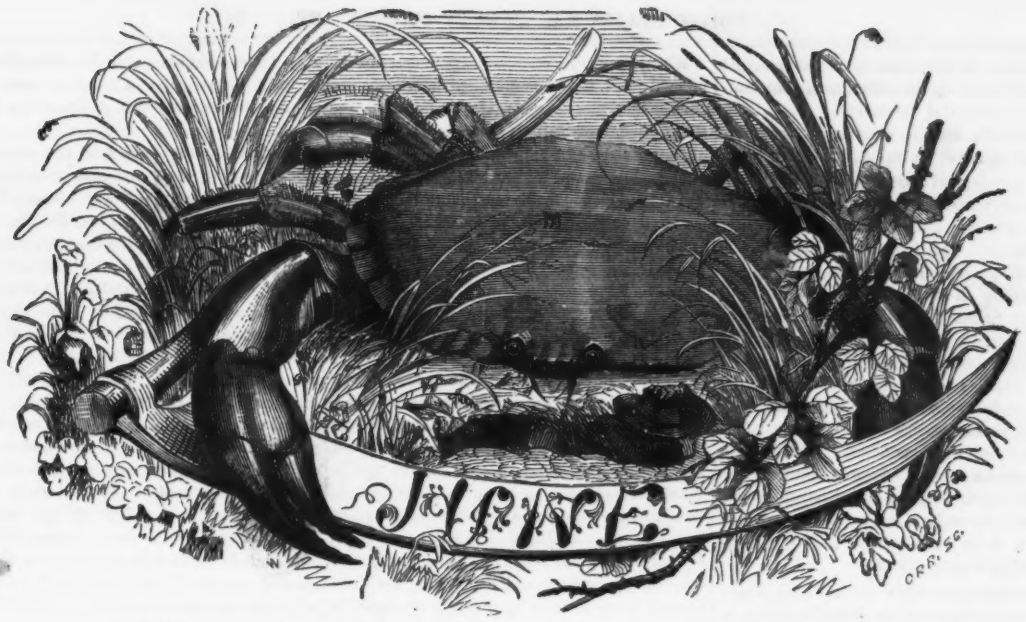
HOTEL DE L'ETAT MAJOR, AND ALEXANDRIAN COLUMN, ST. PETERSBURG.

THE above engraving is taken from "Sears Illustrated Description of Russia." The Alexandrian column, erected to the memory of the late Emperor Alexander, is called the greatest monolith of modern times. It is composed of a single shaft of red granite, upwards of eighty feet in height, with a base and pedestal also composed of one enormous block of the same red granite of the height of about twenty-five feet, and nearly the same length and breadth; the capital measures sixteen feet, the statue of the angel on the summit fourteen feet, and the cross seven feet—in all, about a hundred and fifty feet. As the whole of St. Petersburg is built on a morass, it was thought necessary to drive no less than six successive rows of piles, in order to sustain so immense a weight as this standing upon so confined a base; the shaft of the column alone is computed as weighing nearly four hundred tuns, and the massive pedestal must materially increase the tremendous pressure. The statue was raised in its rough state, and polished after it was firmly fixed on its present elevation. On the pedestal is the following short and well-chosen inscription: "To Alexander the First.—Grateful Russia." The eye rests with pleasure on this polished monument; and in any other city its enormous size would make a greater impression. In St. Petersburg, however, where the eye expands with the vast surrounding spaces, it is seen under a smaller angle of vision. The place on which it stands is so vast in its dimensions, the houses around are so high and massive, that even this giant requires its whole hundred and fifty feet not to disappear. But when the stranger is close to it and becomes aware of its circumference, while its head seems to reach the heavens, the impression is strong and overpowering. Already, however, it is said that an abominable worm is gnawing at this beautiful monolith, and it has likewise received a very sad and offensive rent from above toward the middle. It may be that the stone was at first badly chosen, or that the cold of St. Petersburg will not tolerate such monuments of human art. There are those among the inhabitants who think it a patriotic duty to deny the existence of the rent, which has been artfully filled with a cement of granite fragments. But in the sunshine, when the polish of the rent shows differently from that of the stone—or in the winter, when the hoar frost forms in icicles on the cold stone, but not on the warmer cement—the marring line is but too apparent. The idea of this column is, like everything else in Russia, religio-political. It was erected, as before remarked, in honor of the Emperor Alexander, and is meant to eternalize with his memory that of the reconfirmation of the political constitution and of the security of religion. The mass of the Russian people have been taught to believe that the invasion of Napoleon was not only an attack on the State, but also as one on their faith—(falsely taught, since Napoleon made war on the religious faith of no people or nation). Hence the erection of the angel with the cross on the summit. This column, whose capital and ornaments on the pedestal were formed from Turkish cannon, throws into one category all the enemies of Russia—the Turks, the French, etc.—and is the sealing, ratification, and immortalization of all the modern victories of the Russian [illegible]. [NOTE.—It is said that Louis Philippe, in the days of his greatest power and prosperity, applied to the Emperor Nicholas for a similar column out of his Finland quarries. The Emperor begged to be excused. "He would not," he said, "see [illegible] aim a smaller one; a similar one he could not; and a greater one was not to be obtained."]



United States Magazine.

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WHEAT.*

When we take into consideration the present extraordinary high price of nearly all the materials of human food—especially of bread, the staff of life, we come to the conclusion that probably no subject could be treated upon, which would profitably interest a greater portion of our readers, than an article on this all-important agricultural product—together with brief histories of the character, transformations and habits of the various destroyers, and diseases, to which it is subject.

We doubt much whether the culture of this cereal is fully appreciated by the community at large; believing as we do that it has no inconsiderable share of influence on the growth of civilization; for it has undoubtedly followed the progress of man's improvement, in all countries, probably from the foundation of the world. It is emphatically the food of civilized man—the bread of refinement and taste. The loaf of Genesee flour is the substantial luxury of polished life, while the cake of Indian corn, baked in the ashes, is the symbol of savage fare. The former has become the standard food of the wealthy, while the latter is placed on his table as a variety, more than one of common resort. The growing of wheat, too, is a civilized act; it is scarcely compatible with savage life. Its judicious culture requires the highest skill of the husbandman's art, for the plant is a profitless product, without the knowledge and experience of an educated intelligence. It contains the greatest quantity of starch, and likewise by far the most gluten (equal to *one-fifth* of the whole)—a principle from which it derives its essential quality, which, above all others, peculiarly adapts it for bread. Though the expense of its culture may be somewhat greater, yet it is always chosen when the climate permits, or the poverty of the district does not constrain the inhabitants to be content with a cheaper food.

Wheat has undoubtedly been cultivated in Egypt from the remotest periods, and the details of plowing, sowing, harvesting and garnering this grain, depicted upon the ancient tombs at *Thebes*, are among the most striking and remarkable of the remains of Egyptian art. No one can contemplate these pictorial representations without being impressed with the advanced state of civilization, so early reached by this people. It would appear that many kinds of grain were produced by them; and among the varieties of wheat, the "seven-rowed" is mentioned in Pharoah's dream. This has lately been grown in England, *said* to be from grains found in mummy-cases brought

* Prepared expressly for the United States Magazine, by Daniel E. Gavit.

from Thebes. It was also one of the principal staples of food of the Israelites, as is abundantly proved by the Old Testament.

The cerealia are all remarkable for their wonderful power of multiplication—each grain or seed throwing out several stalks, all of which produce ears; and the number of these are not limited, but depend, more or less, on favoring circumstances. This increase in the stalks is performed by a second set of roots, shooting out at the surface of the ground, subsequently to the first or primary roots. An experiment in England has demonstrated that a single grain of wheat, sown on the second of June, produced eighteen stalks: on the eighth of August the plant was taken up, the stalks divided from each other and replanted, and every separate plant threw out fresh roots and stalks. This process was repeated a number of times, until, by the following April, they had multiplied to 500 plants, all extremely vigorous; the number of ears from these amounted to 21,109, and the number of grains to 576,840.

The cultivation of wheat prevails everywhere in temperate climates; its climatic range is greater than that of any other grain; it differs in its requirements so essentially from most of the other cereals, that the mean temperature of the year is a less decisive test of its successful production than might otherwise be supposed. Its peculiar flexibility of character is dependent rather on hygrometric effects, than mere alternations of heat and cold; and its sensitiveness to extremes of dryness and humidity, restricts or extends its culture, rather than isothermal lines; but temperature becomes the important element during those months when it ripens —13° being assigned as the maximum of range under which this result is accomplished in similar climates; accordingly, we find that the time of harvest in particular localities bears a more decisive relation to thermometric, rather than any other cause. In the extreme southren states of the Union the harvest time is reached in May, when the mean temperature is 67° or 70°. In Virginia this mean is not arrived at until June, and, in New York, in its best wheat districts, the grain is not ripe until July, when the mean is about 69°; thus it will be perceived that a temperature for the last month of the growth of wheat, does not exceed 70°, but falls below this limit. The latest generalizations would seem to prove that the sensitiveness of this grain to the modifying effects of temperature and humidity is greater in the United States than in Europe. Aside from mere soil characteristics, the most fertile wheat districts of our country hold a peculiar relation to our great chain of inland seas, and go far to demonstrate the effects of the near proximity of large bodies of water to wheat-growing regions; but this has not been studied with that care that can lead to any but conjectural results, and we trust that we shall be enabled to return to this subject, in a future article, with some degree of certainty and profit.

England, the northern plain of Germany, and the central areas of Russia—the last stretching eastward from Moscow to the Volga, at the boundary of European Russia, and southward from Moscow to the Black Sea, with Wallachia and Lower Hungary west of the sea—may be designated as the chief wheat climate of Europe.

Wheat is grown on nearly every description of land; but the soils most preferred for its culture are more or less clayey. Indeed, on the continent of Europe, these heavy soils are distinguished by the appellation of "good wheat land." But in tracing the peculiarities of soil which are best for the production of this staple, we shall only refer to the western portion of our own State. It would appear that the most valuable proceeds from the mingling of the arenaceous products of the Medina sandstone, with the disintegrating rocks of the Niagara group, and overlaying shales. Thus, on the north, near Lake Ontario, the sandy ingredients appear to be in the greatest abundance; but as we proceed south, the soil gradually assumes a more argillaceous character, and we find in the valley of the Genesee, probably, the finest wheat region, for its extent, in the world. Whatever may be the nature of the soil, it should be the aim of the agriculturist to grow full crops—a consummation greatly to be wished for among a great majority of the farmers of this country, and one which probably has been brought home to them, by the great demand for breadstuffs, and the prevailing high prices of the present moment.

According to the census of 1850, the wheat crop of the United States for that year amounted to 100,485,944 bushels, showing an increase over the product of 1840 of 15,662,672 bushels. Owing to the extraordinary political events that are at present convulsing the old world, and from various other causes, which have created an increased demand for breadstuffs at highly remunerative rates, it is readily conceded that, in this country, at the present time, there is at least one-fifth more ground under cultivation with this cereal, than was ever before known. Well informed individuals calculate from the present appearances (May 8th) of the crop, that should there be no general devastation from the various destroyers (insects, fungi and drought), it will be perfectly safe to estimate the yield for 1855 at 130,000,000 bushels, of the value of at least $150,000,000. Should efforts to insure full crops, similar to those used by the agriculturists of Great Britain, be universally adopted by our American farmers, there can be no doubt but that the product would be increased one-third; and to impress this startling fact was one of the objects of this paper. Partial, and sometimes extensive failures, will but too often occur; and to neglect making the best known preparation, or even to prepare for half a crop only, is an ill-judged notion, and has a direct tendency to unremunerative farming. In fact, during the preparation of this article, we were informed by B. P. Johnson, Esq., Secretary of the New York State Agricultural Society, that during the great drouth of 1854, the loss occasioned by it, to the wheat crop in this State alone, was $9,000,000. But that in every case where care had been taken to conform with a proper system of cultivation, in regard to drainage and other desirable preparations of the soil, the crops were but slightly, if any, affected by the scourge. Will our agriculturists make a note of this fact, and in their exertions remember that, to insure a full yield of the best quality of grain, they must study the characteristics of the materials (soil, seed, etc.) they expect to produce it from, and then labor assiduously for the accomplishment of their purpose, and in nineteen cases out of twenty their efforts will produce the desired result.

We deem it unnecessary to recommend any special variety, or to give a dissertation on the various kinds and qualities of wheat. The circulation of this journal being distributed over such a large portion of the country, comprising so many differences in the temperatures of the several districts, that probably in many cases the variety advised would be unsuitable. The three specimens depicted at the head of this article, are much valued in New York, and many of the middle and Western States, but the intelligent cultivator must judge from actual experience those kinds best suited to his particular section. Again, the standard works on this all-important subject—agriculture—is within the reach of all who choose to possess them, and the press, exclusively devoted to that portion of economy, is daily teeming with valuable hints in all its departments, and the experienced and intelligent farmer will readily admit that every cent expended for their purchase returns an hundred fold.

We have capital illustrations of the value of experiment in the culture of wheat, in the results of the great London exhibition of 1851. Perhaps the best specimens of wheat examined was, that from South Australia, although it was admitted that some of the varieties of the Spanish, and our Genesee, were very little, if any, inferior. Many of the English farmers supposed that all they would have to do to obtain the same quality of grain on their farms, was to procure the seed from Australia, and sow it in England. As has been since demonstrated, there never was a greater mistake. The wheat of Australia was not a peculiar kind of wheat; it had no particular constitutional characteristics by which it might have been distinguished from the most popular varieties that was already in use in England. Its quality was owing to purely local conditions,—that is to say, the peculiar temperature, the brilliant light, the soil, and those other circumstances which characterize the climate of Australia, where it was produced. There is no doubt of the fact, that wheat can be affected by climate, independent of its constitutional peculiarities; but it does not follow that wheat is not subject to constitutional peculiarities like other plants. There are some kinds of wheat, do what you may with them, will retain a certain quality, varying slightly with the circumstances under which they are produced, as per example: there was at the exhibition samples, especially one of Revitt wheat, of a very fine description, and greatly superior to the ordinary kinds of Revitt, that appeared in the market. This clearly shows that Revitt wheat of a certain kind and quality is better than Revitt of a different kind, both being produced in the same country, so that circumstances being equal, we have a different result, owing to some constitutional peculiarities of race.

But there is one question of the highest interest, which has been more distinctly brought out by the above mentioned Exhibition than it has ever been before. We quote from Dr. Lindley's lecture: "We all know the effect of *hybridizing*, or crossing the races of animals; this

may be done in the vegetable kingdom. We are all aware that our gardeners are skilful in preparing, by such means, those different varieties of beautiful flowers and admirable fruits which have become common in all the more civilized portions of the world; but no one has paid much attention to the point as regards cereal crops. Yet it is to be supposed, that if you can double the size of a turnip, or if you can double the size of a rose, or produce a hardy race of any kind from one that is tender, or the reverse, in the case of ordinary plants, you should be able to produce the same effect when operating on cereal crops. It so happens, however, that the experiment had not been tried, except on the most limited scale, and to what extent it may be carried has been more brought out by this Exhibition than it ever was before. In the last treatise on this subject by Dr. Gærtner, a German writer, who has collected all the information it was possible to procure relating to the production of hybrids in the vegetable kingdom, the author declares that, as to experiments on cereal plants, they can hardly be said to have had any existence. The Exhibition has, nevertheless, shown us that they have been made, and proves distinctly that you may operate on the constitutional peculiarities of wheat, just as you may on the peculiarities of any other plant. For instance, Mr. Raynbird of Laverstoke, who obtained, in 1848, a gold medal from the Highland Society for experiments of the kind, sent to the Exhibition a box, which contained a bunch of *Hopetoun wheat*, a white variety, and a bunch of *Piper's thickset wheat*, which is red. The latter is coarse and short strawed, and liable to mildew, but very productive. Mr. Raynbird desired to know what would be the result of crossing it with the Hopetoun wheat, and the result was shown in the form of four hybrids, obtained from these varieties. The new races thus obtained are intermediate between the two parents,—the ears are shorter than in the Hopetoun, and longer than in the thickset wheat; in short, there is an intermediate condition plainly perceptible in them throughout. And it appears from the statement of Mr. Raynbird, that these hybrid wheats, which are now cultivated in this country, have succeeded to a satisfactory extent, yielding forty bushels to an acre. But in this instance, as in some others, the essential part of the question is not the number of bushels produced per acre, but to show that you may affect the quality of cereal crops, as you may affect animals and other plants. Mr. Maund, an intelligent gentleman residing at Bromsgrove in Warwickshire, has done much more than Mr. Raynbird, for he has obtained a greater variety of results. Mr. Maund has been occupied for some years past in the endeavor to ascertain whether something like an important result cannot be produced upon wheat by muling, and he exhibited the specimens before us in evidence of what may be done. You will observe, that sometimes his hybrids are apparently very good, and sometimes worse than the parents, as we know is always the case. When you hybridize one plant with another, you cannot ascertain beforehand with certainty what the exact result will be, but you will take the chance of it, knowing very well that out of a number of plants thus obtained, some will be of an improved quality. In the present specimens, in each instance, the male parent is on the left hand, the female on the right, and the third specimen shows the result of combining the two kinds: a better illustration could not be desired. Here is a hybrid considerably larger than the parents, and in the next instance one considerably shorter and stouter. In another example, you see a coarse variety gained between two apparently fine varieties—that is, perhaps, a case of deterioration. In another example, you have a vigorous wheat on the left, and a feeble one on the right, while one much more vigorous than either is the result. On the other hand, we have some anomalous cases, in which the effect of hybridizing has been to impair quality. This is a very important case, well made out, because the moment you saw that by mixing corn, as you mix other things, you obtain corresponding results, there is no reason to doubt that an ingenious person, occupying himself with such matters, will arrive at the same improvements in regard to varieties of wheat, as have already been obtained in the animal kingdom, and in these parts of the vegetable kingdom which have been so dealt with." Here is a brilliant opportunity for a display of that inventive genius and ingenuity, for which we are celebrated as a nation. And we trust we shall soon be enabled to announce, that experiments, by American cultivators, have produced hybrid wheats, quite as important and beneficial, as those generated by our elder brothers on the other side of the Atlantic.

The three specimens of wheat, which are illustrated on the first page of this article, are from varieties presented us at the rooms of the State Agricultural Society, at Albany.

No. 1, is the *Kentucky White-bearded, Canada Flint, Hutchinson Wheat.* In many sections this has become a favorite variety. Some persons object to it, on account of the bran being thick, and that it spreads but little, therefore requiring more seed. This latter, however, cannot be regarded as an objection to the wheat. Its straw is stronger; and hence on rich loamy lands, it will succeed better than those with a weaker straw: the latter, too, having more substance, the grain matures, or fills out, after it has been cut. The berries are round, short, and white; weighs 60 to 65 pounds to the bushel; flour very good, but not equal to the white flint.

No. 2, *Soules Wheat.* This is a favorite variety, and is supposed to be composed of the Old Red-chaff and White-chaff bald. The latter more generally known at the South as the *"Virginia White May."* The berries are large, plump and white, stand out well from the ear, shells easy, and yields a very superior flour. Its early maturity makes it still more valuable. It weighs about 63 pounds to the bushel, and has a specific gravity of 1·333.* This is no doubt an excellent wheat, and we have conversed with several well-known agriculturists, who say, taking all things into consideration, they prefer it to even White Flint, or any other variety.

*The true weight of wheat is determined by its specific gravity. The weight of a bushel of wheat will vary with the size of the kernel, and from other circumstances; while its relative weight, or that found by comparing it with an equal bulk of water at a given temperature, depends upon its composition. The heavy varieties, or those with a high specific gravity, contains more gluten than the light; the latter containing more starch.

As the Soules Wheat is such a general favorite, we have determined to give its analysis:—

		Calculated on dry matter.
Starch,	62·29	68·300
Sugar and Extractive Matter, with a little acid formed during analysis,	6·40	7·023
Dextrine, or Gum,	1·21	1·328
Epidermis,	7·20	7·903
Matter dissolved out of epidermis and other bodies insoluble in water and boiling alcohol, by a weak solution of caustic potash,	6·82	7·485
Oil,	1·02	1·119
Gluten,	4·51	4·949
Albumen,	1·67	1·833
Casein,	trace.	trace.
Water,	9·79	
	100·91 S	100·000

The gluten in the above analysis is small, though thought correct. The matter insoluble in water, was digested in successive portions of boiling alcohol for six hours, till nothing more was taken up. The matter insoluble in water and boiling alcohol, was digested in a weak solution of caustic potash, which took up over 7 per centum of the dry grain; which, if albumen, increases that body to a large per centage. The gluten and starch agree nearly with most of the Winter wheat from the Genesee district, but the albumen and epidermis are much greater.

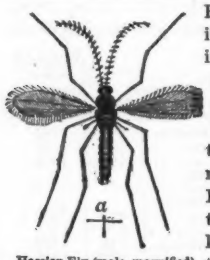
PROPORTIONS.	
Per centage of Water,	9·790
" dry matter,	90·210
" ash,	1·720
" ash calculated on dry matter,	1·906 8

No. 3, *Mediterranean Wheat.* This is supposed to be one of the most hardy varieties. Its principal recommendations are, that it is early, heavy, and escapes all disaster, the fly not excepted. The principal objections to it, are its dark color and inferior flour. It is heavy, having a specific gravity of 1·360. It is bearded; shells very easily, if suffered to stand until ripe. It is not cultivated in those districts where the better kinds succeed well.

It should be remembered that to the influence of soil and climate we are indebted for many varieties of wheat which possess peculiar characteristics, or in which there is an excess of the proximate elements over the others. Gluten is largely developed in some, and starch in other varieties. Some are protected by a thick cuticle, which forms the brand; in others, it is thin and delicate. The former are dark colored usually; the latter, white. Some are armed with stiff and rigid awns; others are awnless. Silex is more abundant in some than in others. Those in which this element is full proportioned, stand erect and never lodge. Even in the course of a few years' culture, changes occur in the constitution of wheat, which are easily observable. Thus the Mediterranean variety—last described—with a judicious cultivation, in a few years becomes assimilated to the more delicate and whiter varieties.

We now turn to the destroyers and diseases of wheat, which was the main object of the composition of this paper, and if the experience and suggestions here placed before our readers, are the means of aiding one farmer in saving his crop—that may be attacked with either of them—we shall feel abundantly compensated for our labor.

No other insect of the tens of thousands that teem in our land, has received a tithe of the attention, or been chronicled with a tithe of the voluminousness that has been assigned to the



Hessian Fly (male, magnified). —From a young specimen, having the fulvous sutures of the abdomen wide. *a* The natural dimensions

HESSIAN FLY, of which it has been aptly said, in reference to their destruction of our wheat crops, that it is more formidable than would be an army of twenty thousand Hessians, or any other twenty thousand hirelings, supplied with all the implements of war. This fly (*Cecidomyia destructor* of Say) is an European insect, and has been detected in Germany, France, Switzerland, and Italy, where it at times commits severe depredations on the wheat crops. Its ravages are alluded to as far back as the year 1732. It was brought to this country, probably in some straw used in package by the Hessian soldiers, who landed on Staten and the West end of Long Island, August, 1776, but did not become so multiplied as to severely injure the crops in that neighborhood, until 1779. From thence, as a central point, it gradually extended over the country in all directions, advancing at the rate of from ten to twenty miles a-year. Most of the wheat crops were destroyed by it, within a year or two of its first arrival at a given place, and its depredations commonly continued for several years, when they would nearly or quite cease; its parasitic insect enemies probably increasing to such an extent as almost to exterminate it. It is frequently reappearing in excessive numbers in one and another district of our country, and in addition to wheat, injures also barley and rye.

Hessian Fly (female, magnified. —From an older specimen, having the fulvous sutures narrow and in part obliterated.

Appearance of a healthy (*) and of a diseased (†) shoot of wheat in autumn, the worms lying at (§). *a*, Ventral view of the "flax-seed" or larva state.

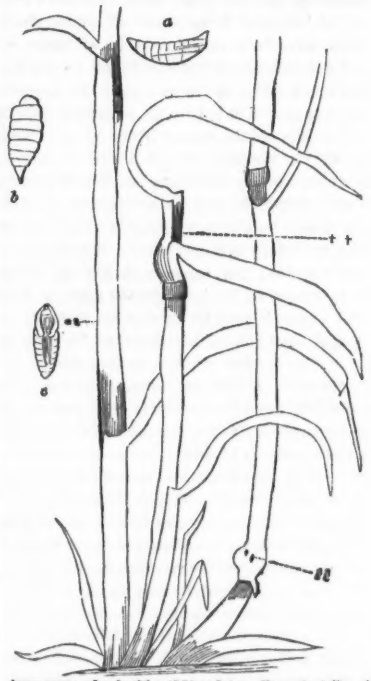
There are two generations of this insect annually. The eggs resemble minute reddish grains, and are laid in the creases of the upper surface of the leaf, when the wheat is but a few inches high, mostly in the month of September. These hatch in about a week, and the worm crawls down the sheath of the leaf to its base, just below the surface of the ground, where it remains, subsisting upon the juices of the plant, without wounding it, but causing it to turn yellow and die. It is a small white maggot, and attains its growth in about six weeks. It then changes to a flaxseed like body, within which the worm becomes a pupa the following Spring, and from this the fly is evolved in ten or twelve days. The fly closely resembles a mosquito in its appearance, but is one-third smaller, and has no bill for sucking blood; it is black, the joints of the body being slightly marked with red. It appears early in May, lays its eggs for another generation, and soon perishes. The worms from these eggs nestle to the lower joints of the stalks, weakening them, and causing them to bend and fall down from the weight of the head, so that toward harvest, an infested field looks as though cattle had passed through it.

Wheat Stalk, sheath broken away, showing the worms on their way down.

Wheat Stalk, sheath broken away, showing the "flax seeds" in their ordinary situation.

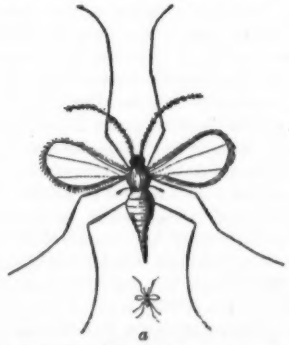
Same as the last.

Wheat can scarcely be grown, except on a fertile soil, in those where this insect is abundant. The sowing should be deferred until about the last of September, the season being then passed, when the fly usually deposits its eggs. If at any time in Autumn the eggs of the insect are observed to be profusely deposited upon the leaves, the crop should be speedily grazed down by sheep and other stock, or if this cannot be done, a heavy roller should be passed over it, that as many of the eggs as possible may be crushed or dislodged thereby. One or the other of the same measures should also be resorted to in the Spring, if the same contingency occurs; or if the worms are, at a later date, discovered to be numerous at the first and second joints of the young stalks, the experiment may be tried of mowing, as close down as possible, the most infected portions of the field. Where the soil is of but medium fertility, a resort to some of the hardier varieties of wheat, which are known to be in a measure fly-proof, may be advisable. Perhaps, after all, the most effective manner of destroying this pest, is to burn the stubble, before plowing for the next crop. It has been urged that, as this also annihilates the parasites that prey upon the fly, some of the other modes would be preferable; but from our own experience, we feel constrained to strongly recommend the fire remedy.

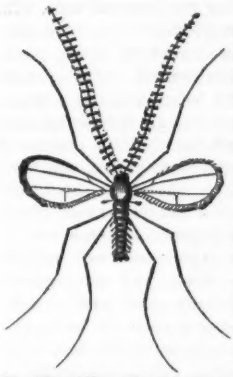


Appearance of a healthy (**) and two diseased stalks of wheat at harvest time, (††) stalks broken, from being weakened by worms, (§§) base of sheath swollen from worms having laid under it, and perforated by parasites coming from those worms; *a*, lateral view of the "flax-seed" or larva case; *b*, dorsal view of the dormant larva, taken from the larva case; *c*, ventral view of the pupa.

Next following the Hessian-fly is the clear-winged WHEAT-FLY (*Cecidomyia Tritici*). This species is very distinct from the fly above described; its habits sufficiently show this difference; and the remedies which are in some measure palliative in the case of the hessian-fly are valueless against this. Among its peculiarities, some of the most remarkable are that it deposits its eggs in the wheat head, and undergoes its metamorphoses in the soil, and that the mature animal is engaged longer in the work of depositing its eggs than the hessian-fly. These distinctions must govern our attempts to guard against the attacks of these insects. The defalcations they sometimes occasion is quite enormous. We have heard of many cases where it was equal to 50 per cent. of the whole crop; and when evidences of their presence is discovered in a district, prompt measures should be taken for their destruction.



Clear Winged Wheat-Fly, female; greatly magnified *a*, the natural size.



Clear-Winged Wheat-Fly, male; magnified.

The wheat-fly possesses the following characteristics: body, orange; wings, transparent, rounded at the tips, ciliate, or fringed with minute hairs; length, about one-tenth of an inch. Its general appearance is that of an orange-colored gnat. One can get the most clear and definite idea of the characteristics of this fly by being told that it looks precisely like the wheat-worm, with wings and legs added.

Clear-Winged Wheat-Fly, at rest; magnified.

The first account of this insect was published in 1820. It was first observed in our State in 1828. Its first appearance in this country was in the Eastern section; since several of the Eastern and Middle States and the Canadian Provinces have been visited by it. The cultivation of wheat was suspended for many years, in consequence of its injurious attacks.

The time of the appearance of this fly varies according to the situation of the country, being in some places in June, and in others late in August. The first half of July, however, is the time when the largest number of eggs are deposited; a period which, in New England, would find the spring and winter grains in the best state for receiving the egg. The insects are active in the morning and evening, and appear in swarms; but during the day, when the sky is cloudless, they conceal themselves among the grain and grass.

Kernal of wheat, with the husk, and the worms feeding upon its pulp.

After about eight days, the eggs that have been deposited in the heads of the grain are hatched. The maggots are orange color, and attain their growth in about twelve or fourteen days; they are about the eighth of an inch long, but their size is not uniform. Their number is also variable, as many as forty being sometimes found on a single plant, and at other times two or three only. They seem to be influenced by exposure; for in hilly places, where the grain is exposed to the wind, they are much less numerous than in sheltered spots.

Pupa, greatly magnified.

The injury that wheat sustains by the presence of this fly depends upon its state of forwardness. As the worm is unprovided with boring instruments, it is principally during the soft state of the grain that it has the power to do most hurt. If the egg is deposited so as to be hatched when the plant is in blossom, it is then capable of inflicting the greatest injury; for at this time it is supposed to subsist on the pollen, and may therefore prevent the fertilization of many kernals in the same head; and then, also, it obtains the milky fluid that begins to be formed at this period, and is now accessible through the softness of the skin or epidermis of the grain. But if the time of the deposition of the egg is such that it becomes hatched after the plant has flowered, and the kernal has acquired some considerable hardness, the worm is incapable of absorbing nutriment, and perishes for want of food.

Wheat-head, with the chaff bent down by the yellow-bird in getting at the worms leaving the grain, as at * * *

The worms acquire their full size and perfection, cast their skins, and descend to the ground in August. They bury themselves in the soil to the depth of about an inch, where they remain through the winter. There is, therefore, but one brood in a season. The worm is speedily changed into a pupa, in which state it remains in the ground until ready to issue therefrom, in June or July of the following year, in the *imago* state, or that of the perfect fly.

The means that have been proposed to destroy this kind of wheat-fly are numerous; if any of them are to be effectual, it is evident they should be resorted to over the whole district infested. Among the remedies which seem to have been at least partially successful, is that of the abandonment of the cultivation of winter wheat, for the substitution of the spring variety and late sowing. This remedy operates on the principle of starvation, and would probably be completely successful, were it not that grasses and other grains beside wheat are suitable recipients for the eggs of the insect, and furnish nutriment for its progeny. Again, it has been recommended to smoke them out. To effect this, the flies must be attacked in the evening, when they rise from their lurking places in the depths of the grain. Brimstone, mingled with other combustible matter, should be burned in a position to give them the full benefit of the smoke and vapor when they rise upon the wing and hover over the grain. Another plan is to sow quick-lime over the field when the heads of the grain are moist. This latter may be repeated several times. Again, it has been recommended to net them as follows: take a long rope attached to a wide-open, tight bag, and let two men, one at each end of the rope, pass through the field, dragging the open, wide-mouthed net over the heads of the wheat. Go over the whole field in this way, and millions of the fly will be caught, if the net or bag is properly managed. Deep ploughing is a remedy that has been tried and often found successful. This, of course, is to be resorted to after harvest; the object of this is to bury the insect so deep, that they will be unable to find their way out of the ground the next season.

The wheat and corn fields of the South and West have often suffered severely from the depredations of certain minute insects, which have long been known under the appellation of THE CHINTZ, or CHINCK BUG, (*Lygæus leucopterus*) of Say. In the State of Virginia, more especially, this chinck bug has been found to be a much more formidable enemy than even the hessian-fly or wheat-fly. From late accounts we find that it is steadily extending its ravages over the whole wheat range—specimens having lately been discovered in this and the Eastern States, and we deem it not improbable that it may yet become troublesome in districts North and East, where, as yet, our practical agriculturists are entirely unacquainted with it. In anticipation of such a disastrous event and to gratify a curiosity that has been expressed concerning these offensive insects, we here bring forward such information in relation to them, as has come under our scope.

They were first described as early as the year 1788, and were at that time supposed to be apterous, as they are in that state while performing their ravages on the crops. They then much resemble in scent and color the bed bug.

The young individuals are at first a bright red, changing with age to brown and black. They travel in immense columns, from field to field, like locusts, destroying everything as they proceed. In the southern States they make their appearance in the month of May, and in the West about the middle of June. They attack the wheat by attaching themselves to the stalk, from which they extract the sap, to the last particle. The consequence is, that, at harvest time, not only the grain, but the straw also, is nearly worthless. About the time the wheat is ready to cut, these insects arrive at their perfect state, when they are not apterous, but are provided with wings, and then measure about three-twentieths of an inch in length. They are readily distinguished by their white wing-covers, upon each of which there is a short central line and a large marginal oval spot of a black color. The rest of the body is black and downy, except the beak, the legs, the antennæ at base, and the hinder edge of the thorax, which are reddish-yellow, and the forepart of the thorax, which has a grayish luster. The eggs are laid in the ground, in which they have been found in great abundance at the depth of an inch or more. They continue their depredations on various plants during the whole summer, finally taking shelter during the winter under the bark of stumps and logs, under large clods, etc., many of them living to recommence their work of devastation during the following year. The destruction of the chinck bug is attempted by running ditches across the field filled with straw, and as soon as the bugs are seen thereon, setting fire to it. Many are exterminated by occasionally burning the dry leaves in the forest upon which they settle. No doubt some of the remedies used against the hessian and wheat flies would be valuable against the chinck bug.

In the Eastern States another small insect has been discovered in the ear of growing wheat. It seems to agree with the account of the *Thrips cerealium*, which sometimes infests wheat in Europe to a great extent. This insect,

in its larva state, is smaller than the wheat maggot, is orange colored, and is provided with six legs, two antennæ, and a short beak, and is very nimble in its motions. It is supposed to suck out the juices of the seed, thus causing the latter to shrink and become what the English farmers call pungled. This little pest may probably be destroyed by giving the grain a thorough coating of slacked lime.

Stored grain is exposed to much injury from the depredations of two little moths, which, on examination, turns out to be identical both in this country and Europe; but not having been thoroughly described by our home entomologists, we are obliged to rely on the accounts given by foreign writers.

The Grain Moth (*Tinea Granella*), in its perfect state, is a winged insect, between three and four-tenths of an inch long, from the head to

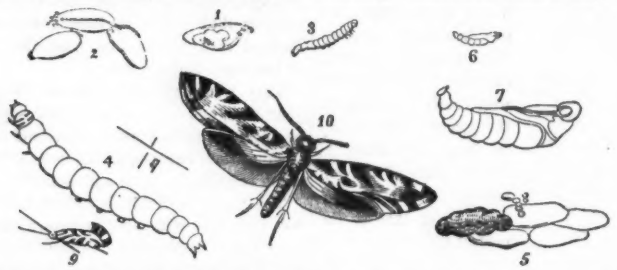


Fig. 1. A grain of wheat opened, to show the cavity in which the caterpillar of *Tinea granella* had fed, with the excrement at the apex. Fig. 2. Several grains united by the same caterpillar. Fig. 3. The caterpillar of *Tinea gaanella*. Fig. 4. The same magnified. Fig. 5. A group of the cocoons spun by the same. Fig. 6. The *chrysalis* taken out of a cocoon. Fig. 7. The same magnified. Fig. 8. A *chrysalis* sticking in a cocoon after the moth was hatched. Fig. 9. *Tinea granella* at rest. Fig. 10. The same flying, and magnified. *q*. The natural dimensions.

the tip of its wings, and expands six-tenths of an inch. It has a whitish tuft on its forehead; its long and narrow wings cover its back like a sloping roof, are a little turned up behind, and edged with a white fringe. Its fore-wings are glossy like satin, and are marbled with white and gray, light brown, and dark brown and blackish spots, and there is always one dark square spot near the middle of the outer edge. Its hind-wings are blackish. Some of these winged moths appear in May, others in July and August, at which time they lay their eggs; for there are two broods of them in the course of the year. The young from the first laid eggs come to their growth and finish their transformations in six weeks or two months; the others live through the winter, and turn to winged moths in the following spring. The young moth worms do not burrow into the grain, as has been asserted by some writers, who seem to have confounded them with the Angoumois grain-worms; but, as soon as they are hatched, they begin to gnaw the grain, and cover themselves with the fragments, which they line with a silken web. As they increase in size, they fasten together several grains with their webs, so as to make a larger cavity, wherein they live. After a while, becoming uneasy in their confined habitations, they come out and wander over the grain, spinning their threads as they go, till they have found a suitable place wherein to make their cocoons. Thus wheat and the other cereals, all of which they attack, will be found full of lumps of grain cemented together; and when the worm is very numerous, the whole surface of the grain in the bin will be covered with a thick crust of webs and of adhering grains. These destructive corn-worms, as they are sometimes designated, are really soft and naked caterpillars, of a cylindrical shape, tapering a little at each end, and are provided with sixteen legs, the first three pairs of which are conical and jointed, and the others fleshy and wart-like. When fully grown, they measure four or five-tenths of an inch in length, and are of a light ocher or buff color, with a reddish head. When about six weeks old, they leave the grain, and get into cracks, or around the sides of corn bins, and each one makes itself a little oval pod, or cocoon, about as large as a grain of wheat. The insects of the first brood, as before said, come out of their cocoons, in the winged form, in July and August, and lay their eggs for another brood; the others remain unchanged in their cocoons throughout the winter, and take the chrysalis form in March or April following. Three weeks afterwards, the shining brown chrysalis forces itself part way out of the cocoon, by the help of some little sharp points on its tail, and bursts open on the other end, so as to allow the moth therein confined to come forth.

From various statements, there is no doubt but that this grain moth prevails, to a greater or less extent, in all parts of the country, and that it is generally taken for the grain weevil, from which, of course, it is entirely a distinct species. Its habits, probably, are somewhat varied; for, although most writers on its history agree in saying that the insect leaves the grain and conceals itself in crevices of the granery when preparing to make its cocoon, others expressly state that it undergoes its transformations in its web among the grain.

The other of these moths is known as the Angoumois Moth (*Anacampsis* [*Butalis*] *cerealella*). For more than a century this insect has prevailed in the western parts of France, and has gradually been extending in several directions. In some provinces in that country it has been found much more destructive than the species above described. In the province of Angoumois it continued to increase for many years, till at length the attention of the government was directed to its fearful devastations. This was in 1760, when the insect was found to swarm in all the wheat fields and granaries of Angoumois and the neighboring provinces, and the afflicted inhabitants were thereby deprived not only of their principal staple, wherewith they were wont to pay their annual rents, their taxes, and their tithes, but they were threatened with famine and pestilence for the want of wholesome bread. This insect, in its perfect state, is a little moth, of a pale cinnamon brown color above, having the luster of satin, with narrow, broadly-fringed hind wings of an ashy or leaden color, two thread-like antennæ, consisting of numerous bearded joints, a spiral tongue of moderate length, and two tapering feelers, turned over its head. It lays from sixty to ninety eggs, placing them in clusters of twenty or more on a single grain; from these are hatched, in from four to six days, little worm-like caterpillars, not thicker than a hair, these immediately disperse, and each one selects for itself a single grain, and burrows therein at the most tender part, commonly the place whence the plumule comes forth; remaining there concealed, it devours the mealy substance within the hull, where the destruction goes on so secretly as only to be detected by the softness of the grain or the loss of its weight. When fully grown, this caterpillar is not more than one-fifth of an inch long. It is of a white color, with a brownish head, and it has six small jointed legs, and ten exceedingly small wart-like prop legs. Having eaten out the heart of the grain, which is just enough for all its wants, it spins a silken web or curtain to divide the hollow, lengthwise, into two nearly equal parts, the smaller containing the rejected fragments of its food, and the larger cavity serving instead of a cocoon, wherein the insect undergoes its transformations. Before turning to a chrysalis it gnaws a small hole nearly, or quite, through the hull, and sometimes also through the chaffy covering of the grain, through which it can make its escape easily when it becomes a winged moth. The insect of the first, or summer brood, come to maturity in about three weeks, remain but a short time in the chrysalis state, and turn to winged moths in the autumn, and at this time may be found, in the evening, in great numbers, laying their eggs on the grain stored in barns and granaries. The moth-worms of the second brood remain in the grain through the winter, and do not change to winged insects till the following summer, when they come out, fly into the fields in the night, and lay their eggs on the young ears of the growing grain. Although, there seem to be two principal broods in the course of a year, we are not to understand that these are the only ones, for French writers inform us that others are produced during the whole summer, and that the production of the insect is accelerated or retarded by differences in the temperature of the air. When damaged grain is sown it comes up very thin; the infected kernals seldom sprout, but the insects lodged in them remain alive, finish their transformation in the field, and in due time come out of the ground in the winged form. Although the above is the French account of this moth, we feel confidant, that, from the repeated examinations of our American writers, they are identical with the moth of this country, and, perhaps, hereafter their mode of introduction among us may be as satisfactorily accounted for, as that of the hessian-fly.

It has been proved by experience that the ravages of the two kinds of grain-moths, whose characteristics we have just described, can be effectually checked by drying the damaged grain in an oven, or kiln, and that a heat of 167°, Fah., continued during twelve hours, will kill the insects in all their forms. Indeed,

the heat may be reduced to 104°, with the same effect, but then the grain must remain exposed to it for the space of two days. Insect-mills, somewhat like coffee-roasters on a large scale, have been invented in France, for the purpose of heating and agitating the infested wheat by which the eggs and larvæ of these moths are destroyed. Fumigation, in close vessels, with the gass of burning charcoal, is found to be an effectual remedy, and we have assurance that this process neither imparts any bad flavor to the grain, nor does it impair its power of vegetation. Early threshing and winnowing is also recommended. Machine threshing is decidedly preferable, and the process, if possible, should not be deferred beyond the first of August. Passing through a rubbing-mill is beneficial, and if the wheat is not ground at once, it should be deposited in tight bins or casks. If a large surface of grain be exposed in the barn or granary, or the mill, during the season of the moth, it will assuredly become affected; for, in the night, when these insects are most active and on the wing, they will light on the exposed surface, and deposit their eggs, which, in a few months of hot weather, will produce numerous and successive broods of moth worms.

Of all the destroyers of wheat, probably none is more extensively known by name than the natural GRAIN WEEVIL (*Calandra granaria*); still we think we shall be sustained in the assertion that among agriculturists generally, not one in a thousand of the class referred to, actually understand, either its character or appearance. In fact, we have consulted many of the more educated class of farmers, who gave it as their opinion, that the greatest havoc of this insect was committed while the grain was in the ripening field.

Granary weevil, magnified; *a*. the natural size.

The granary weevil, in its perfect state, is a small beetle of a pitch red color, about one-eighth of an inch long, with a slender snout slightly bent downwards, a coarsely-punctured and very long thorax, constituting about one-half the length of the whole body, and wing-covers that are furrowed, and do not entirely cover the tip of the abdomen. This little insect, both in its beetle and grub state, devours stored wheat and other cereals, and often commits much havoc in granaries, brew-houses, etc. The power of multiplication of this weevil is truly wonderful, it having been demonstrated that a single pair of them can reproduce above six thousand descendants in a single year; and they are sometimes so numerous in a grain heap, that they destroy it altogether, leaving nothing but the chaff.

A grain of wheat opened, showing the weevil at work inside.

After the sexes have paired, the female makes a hole in a grain of wheat with her rostrum, and deposits an egg. These holes are not perpendicular to the surface of the grain, but oblique, or even parallel, and are sopped with a species of gluten of the same color of the corn. Sometimes two eggs are deposited in the same kernel, and the larvæ of the twins are just as plump as those who have the good fortune to have a whole grain to themselves. From the egg is hatched in due time a small footless grub, which, during its growth, eats out the entire contents of the grain, and when lodged in the grain, is perfectly sheltered from all injuries of the air, because its excrements serve to close up the aperture; so there is no use of stirring the grain as nothing can incommode it. It is very white—has the form of an elongated soft worm, and the body is composed of nine prominent rounded rings; it is nearly a line in length, with a yellow rounded head, provided with proper instruments for knawing the grain. When the larvæ has eaten all the flour, and it is arrived at its full growth, it remains in the envelope of the grain, where it is metamorphosed into a nymph, of a clear white and transparent color; the proboscis and antennæ can readily be distinguished; but it gives no sign of life, except when disturbed, and then but a slight movement of the abdomen. Eight or ten days after, the perfect insects eats its way out; and immediately commences preparation for another brood. These insects are effectually destroyed by kiln-drying the wheat; and grain that is kept cool, well ventilated, and is frequently moved, is said to be exempt from attack. A correspondent of the "Mark-lane Express," in speaking of this grain weevil, says:—"Some years ago we found a house overun with weevils; after numberless attempts to destroy them, we were led to observe that they were almost entirely on the south wall (our rainy side), and that they appeared to breed in incredible numbers, in an unusually damp spot or corner. Taking the hint, we cased the wall on the outside with slate, and made the house in every respect perfectly dry, and in a short time the weevils died off and disappeared. Since adopting this precaution, we have not the least trouble, and have only been reminded that such an insect exists, when an accidental spot of damp has appeared to generate them again. We think ourselves, therefore, entitled to say, that these insects require moisture; and that if the grain and granary, as both ought always to be, are dry and healthy, weevils will not long remain. This plan bears the merit of costing less than nothing, because the injury that wheat sustains directly from damp, is more than equivalent to the expense of keeping premises dry, leaving its indirect influence in the generation of weevils, out of the question."

Nymph, or pupa of the Granary weevil mag.

An experiment was lately tried at the Patent Office, at Washington, to destroy the weevils with chloroform, and it would appear that results satisfactory to the experimenter was arrived at; but should there be merit in the application, probably the process will be much too expensive for practicability. It might, however, do well in some cases.

Another species of beetle that preys upon wheat, is the CORN SILVANUS, (*Silvanus Surinamensis*). From the specific name, it may be inferred that this little beetle has been imported originally from Surinam. It is now a constant inhabitant of our stores and warehouses. It commits its depredations much in the same manner as the last, and with which it is often confounded—although a separate and distinct species.

The corn silvanus; magnified; *a* the natural size.

The corn silvanus is only one line and a quarter long, and very narrow; it is flat and of a rusty brown color, thickly and coarsely punctured, and sparingly clothed with short yellow depressed hairs.

Larva of the above magnified

The larva is a little depressed yellowish white worm; it is composed of a tolerably large head, with two pointed jaws, and two little horns, and of twelve transverse segments; the tail is somewhat conical, and it has six articulated legs. The nymph, is of the same color; the head is bent downwards; the thorax is suborbicular with three ridges; the sides with a few short spines; scutellum elongated; elytra wrapped over the sides and striated; abdomen with distinct segments; the sides with short thick points like the thorax. This insect attacks all of the cereals, and is also found under the bark of trees, old stumps, etc. The remedies recommended for the granary weevil, will also be found available against this.

Nymph of the same, magnified.

We now proceed to notice another class of destructives—the PARASITIC FUNGI. This class of plants derive their nutriment from some kind of organized matter, none of them growing directly from the soil, water, or atmosphere, like other plants. They are of great importance in the economy of nature, by assisting in the decomposition of decaying animal and vegetable substances. A few of them appear to grow on healthy subjects; but these, possibly, may most frequently have originated on a part where disease or decay had already effected some alteration in the tissue, and then, by spreading rapidly from thence, they may afterwards have caused the delay of other parts also. None of this tribe of plants attain to any great size, when we compare them with many species of flowering plants. Among fungi we find a multitude of extremely minute species, which it needs the skill of an experienced microscopic observer to detect and examine; and it is also among the very lowest of the several groups into which these minute fungi are classed, that we must search for the few species that produce the fatal diseases in wheat we are about to describe. But if these fungi are in themselves so exceedingly small, how much more so are those reproductive bodies analogous to the seeds of flowering plants, by which they are propagated and multiplied. So very minute are these sporules (as the botanists term them), that they altogether escape observation by the naked eye, and can only be just distinguished by high powers of the microscope. Many of this kind of fungi live beneath the scarfskin, or epidermis, and within the very substance of certain plants. In the progress of their growth they raise blisters under the epidermis, and when arrived at maturity, they burst through it, and then form blotches of various colors, which are frequently orange, brown, or black. These spots (or *sori*) are masses of fructification, and are surrounded by the tattered edges of the ruptured epidermis. A vast number of these fungi are known

to botanists. Like parasitic animals, they are restricted in their power of attack, being able to live on certain species only, and even on particular parts only of the same individuals of these species. The flea which attacks dogs is distinct from that which annoys man. So, also, with these parasitic fungi ;—some are restricted to one species of plants, some to another ; but, generally speaking, most of them are capable of living upon more than one species of the same genus, where, of course, we might expect the resemblance in all points to be very close. Some fungi confine their attacks to the seed, others to the stem or leaves, and some even only to one side of the leaves. One of these that attacks wheat lives only on the grain, another more particularly attacks the short stalks on which each flower is seated, while some of these, of which we are about to speak, are restricted to the straw, chaff, and leaves ; but all of them live at first beneath the epidermis, and not upon it. In this respect they bear a close analogy to those parasitic animals which live within the bodies of other animals, some immediately beneath the skin ; others in the intestines, and others, again, within the very substance of the muscle. It is the extraordinary minuteness of the sporules (or seed-like bodies) of these fungi, which allows of their being absorbed by the roots, and probably, also, through the pores of the stem and leaves of plants ; and then they are conveyed by the sap to the various parts where they are enabled to germinate, grow and fructify. The sporules appear to be everywhere dispersed through the atmosphere, ready to germinate wherever they may find a dead or living subject in a condition suited to their attack. Common mouldiness, for instance, which so readily forms on many substances in moist situations, is the most familiar example of the inconceivable numbers in which the sporules of a minute fungus are every where diffused. The difficulty of admitting such a universal dispersion of these sporules has induced some modern philosophers to support the old exploded theory of spontaneous generation. Of this theory, however, we may safely assert, in the present state of human knowledge, that it involves difficulties an hundred fold more inexplicable than any which attend on the opposite theory, which teaches us, that all living creatures proceed from similarly organized beings, originally called into being at the fiat of the Almighty. We shall, therefore, consider these minute fungi to be plants, which proceeded from, and are capable of reproducing their kind, by means of those minnte sporules with which direct observation has made us well acquainted.

The first of these fungi which we shall notice is the Bunt or Smut Ball (*Uredo Caries*, De Condolle—*Uredo fœtida*, Bauer). The fungus which occasions this well-known and much-dreaded disease, has thus far been met with, only in grains of wheat. Its presence is readily recognized by the peculiar disgusting odor of the infected ear. It may readily be detected in the young seed, even at the earliest stages of the flower-bud, and, when fully ripe, it most frequently occupies the whole interior of the grain, but without bursting the skin ; so that the wheat retains the same size and shape, that it would have assumed, had it been perfectly sound. When examined under the microscope, the bunt-fungus is seen to consist of vast numbers of extremely minute globules, of a dark color, and which are at first attached to a mass of thread-like matter, analogous to what is termed "the spawn" in mushrooms and other agaries, and which, in those plants, spread under ground, and frequently occasion the remarkable appearances, called fairy rings.

It is not easy to see this spawn of the bunt-fungus, but the little dark globules called spores may readily be detected. They may be considered analogous to the seed-vessels of flowering plants, and each of them contains a mass of almost inconceivably minute sporules, by means of which the plant is propagated.

The reproductive powers of fungi are quite beyond our power of comprehension. Fries, one of our greatest authorities, has calculated that a particular fungus may contain 10,000,000 sporidia. M. Bauer, has actually measured the spores of the present species, and found their diameter is not more than the one-sixteen-hundredth part of an inch. A single grain of wheat, estimated at less than the one-thousandth part of a cubic inch, would, therefore, contain more than 4,000,000 such spores; but it is hardly possible to conjecture how many sporules each contains, since they are scarcely distinguishable under any very high powers of the microscope, and then appear only as a faint cloud of vapor, whilst they are escaping from the ruptured spores.

When this disease prevails, it greatly deteriorates the value of the sample,—imparting a disgusting odor to the flour, and it makes it much less fit for domestic purposes. Although the bunt-fungus confines its attacks to the young seed, it seems to be a condition essential to its propagation, that it should be introduced into the plant during the early stages of its growth, and that its sporules are most readily absorbed by the root during the germinating of the seed from which the plant has sprung. It has been clearly proved that wheat plants may be easily affected and the disease thus propagated by simply rubbing the seeds before they are sown with the black-powder, or spores of the fungus. It is also as clearly ascertained, that if the seeds thus tainted be thoroughly cleansed, the plants raised from them will not be infected. This fact is now so well established, that in Europe, and among many well-informed farmers, in this country, a practice of washing or steeping seed-wheat in certain solutions, prevails to a great extent. Upon simply immersing the grain in water, the infected seeds float, and, on the water being poured off, nothing but the sound ones remain in the vessel. This simple process, however, is never perfectly effective, because, in threshing the wheat, many of the infected grains (smut-balls) are crushed, and the spores are dispersed in the form of a fine powder, which adheres, with considerable obstinacy, to the surface of the sound grains, by means of an oily or greasy matter found on the fungi. In order to detach them effectively, it has been considered useful to add some alkaline ley to the water in which they are washed ; because oil and alkali unite and form a soapy substance, and then the spores will no longer adhere to the surface of the grains of wheat. Lime, possessing alkaline properties, is extensively used for this purpose. Common potash, and substances containing ammonia, as the liquid portion of stable manure, have also been used. Again, strong brine, sulphate of copper, arsenic, and a variety of other materials which do not possess alkaline qualities, have been employed, which would leave the impression that all these solutions act rather by destroying the vegetative properties of the fungi, than as a means of removing them from the surface of the grains.

The Smut or Dust Brand (*Uredo segetum*) is a disease produced by another fungus, which is often confounded with the last ; and, no doubt, more prevalent on this continent, than either of the numerous diseases of wheat. The smut-fungus resembles the bunt-fungus in color and shape ; but its spores are not half so large, and it possesses none of the disgusting odors which characterize the latter. Although this fungus is generally supposed to attack the grain much in the same way as the bunt-fungus, only that it more thoroughly destroys it, this is not the case ; it has been proved that the smut-fungus, destroys the ear, by first occasioning the innermost parts of the flower to become abortive ; whilst the little stalks on which these are seated swell and become very fleshy. The fungus then consumes the whole of this fleshy mass, and, at length, appears between the chaff scales, in the form of a black soot-like powder, the spores having burst through the epidermis of the grain. Mr. Bauer gives the dimensions of this fungus, by which it appears that the diameter of a spore is not more than the twenty-eight-hundredth part of an inch.

On some accounts this disease is not so much dreaded as bunt ; the principal ones are, that the spores have generally been dispersed before the grain is cut ; and, even when present in the flour, they have no disagreeable odor. It is sometimes, however, very injurious by diminishing the product. This fungus is common in most of the cereals. It is likewise observed in several grasses. Like the bunt-fungus, so, also, may the smut-fungus be kept in check, by carefully steeping the infected grain ; but this process does not here appear to be so thoroughly effective as in the former case. Probably, the earlier ripening of the spores causes the sporules to disperse in the fields, and so keep up a greater out-door supply of them. If of two evils we might choose the least, it would certainly be more desirable that the wheat should be attacked by smut than bunt. It seems to be most likely that grain affected with either, cannot be very noxious, as fowls which have been fed with them receive no injury.

In regard to the precautions to be taken against bunt and smut—whatever some persons hope, when they suggest the possibility of our effectually exterminating the bunt-fungus, if a system of carefully steeping all seed wheat were to prevail universally, the most sanguine calculations could never count upon the termination of the smut-fungus with any prospect of success. Since the latter does not confine its attacks to grain, but is also found in the grasses which grow in pastures, and by the road-side, a plentiful supply of sporules will always be kept up to warrant the belief that we shall never expunge this species from Flora. Still, we may feel assured that precautionary mea-

sures may materially lessen an evil which cannot be wholly avoided. Since the sporules of the two fungi which produce bunt and smut enter the plants, they attack, by absorption, at the roots, and, since they are buried with those seeds to whose surface they have attached themselves, it is evident that too much care cannot be bestowed in procuring clean seed, or in purifying such as may accidentally be infected. It has been suggested that the farmer should cultivate a crop expressly for seed, by which a small spot could be set apart, and more carefully attended than the rest. He then would be able to weed it from every plant infected with any observable disease, and thus secure good and perfectly clean seed.

Perhaps, next in order, it will be best to describe the *Rust*, or, as it is sometimes designated, RED-RAG, RED-ROBIN and RED-GUM (*Uredo rubigo* and *Uredo linearis*). It is believed that, under the names here quoted, agriculturists have comprehended the attack of what systematic botanists consider to be two distinct species of fungi, and which the experienced eye of the microscopic observer was alone likely to separate. Rust first appears on the blades of wheat in the Spring. The fungi form yellow and brown oval spots and blotches upon the stem, leaf and chaff; and when the spores have burst through the epidermis, they are readily dispersed. Like those of the bunt-fungus and smut-fungus, they consist of very minute grains, but their color is different, varying from orange-yellow to brown, and their shape is not so perfectly spherical, especially those of *U. linearis*, which are usually oblong. Those fungi are very common on grain and grasses —in general more abundant than any other of the grain pests. It abounds in the form of an orange powder, which exudes from the inner surface of the chaff scales, but it is scarcely, if ever, to be seen in the skin of the seed; it may also be traced in patches beneath the epidermis of the straw, but we do not observe that it bursts through the epidermis anywhere, excepting on the inside of the chaff. This disease has been proved to be identical with MILDEW (*Pucinia graminis*). There can be no doubt that the former is only an early stage of the growth of the latter. The ripe spores are little intensely dark-brown club-shaped bodies, having the thicker end divided into two chambers, each filled with sporules. They taper gradually at the base into a fine stalk. The sori (or patches of spores) are composed of multitudes of these bodies, which sometimes burst through the epidermis of the stem and leaves in such profusion that the whole plant appears to have been scorched.

On the precautions to be taken against rust and mildew, we have very little satisfactory information. It has not been clearly determined by experiment whether the sporules of rust and mildew fungi are absorbed by the roots of grain like those of the burnt and smut-fungi, or whether (which seems to be the most prevalent idea) they enter through those minute pores on the stem and leaves, which botanists term "stomata." The fungi at first make their appearance in little cavities seated immediately beneath these pores, which certainly look very much as if the sporules entered there. The stomata are naturally exhaling organs, continually discharging, under the influence of light, a large portion of the water imbibed by the root. But in moist weather this function is impeded—if, in some cases, it is not actually reversed—when it would be easy for the sporules to enter these invisible stomata with the moisture imbibed by them. The fact, however, stands in need of proof; and hitherto the evidence is more in favor of similar fungi being imbibed by the roots of the plants which they attack. Mr. Knight, indeed, who is high authority, particularly insists upon mildew being induced by foggy weather happening at a time when the ground is particularly dry; circumstances which we may readily understand as likely to convert the stomata (or even the whole superficial tissue of plants) into imbibing organs. If the autumnal fogs really predispose wheat to the attacks of the mildew-fungus, we must agree with those who recommend the growth of early varieties in places subject to these fogs. It seems to be pretty generally admitted that spring wheats are less liable to mildew than winter wheats, and that heavy soils are less subject to it than light ones. But, at present, the information on these points are most vague and unsatisfactory. We may safely conclude that a general healthy state of the plant, without any over-luxuriance of vegetation, is most likely to secure a crop against the attacks of the rust and mildew fungi; but, that whatever tends to render the plant sickly, whether it be excess of heat or cold, drouth or wet, sudden changes of temperature, poverty of soil, or over-manuring, shade, etc., etc., must be considered as a predisposing cause to these diseases. If it were clearly ascertained that a wheat crop had imbibed the sporules of the mildew-fungus early in the season, it would undoubtedly be advisable to feed it down with sheep or other cattle. The plan of mowing it as close down as possible, would also be beneficial. The rust and mildew fungi attack many grasses, and have been found in great perfection in the common reed. It is evident, therefore, that we can never expect to exterminate these fungi, but that these sporules will always be found in our fields, ready to attack grain crops whenever these are brought into a state adapted to receive their influence.

Although we have not noticed *all* the destructives of wheat, we have described those which we have deemed most important. Before closing, we would again impress on agriculturists generally the importance of availing themselves of the immense practical benefit science is daily placing within their reach. Chemistry and the microscope are opening founts of knowledge that are invaluable to their calling, at once paving the way to its successful prosecution. And the fact is becoming each moment more extended, that to produce good and large crops, agriculture is an employment that requires quite as much study and experience as either of the other (so called) learned professions. But we think we hear one say, "How am I to avail myself of these benefits? what do I know of chemistry or the microscope?" Friend, in relation to the latter, we will inform you of a few significant facts. If you will procure a microscope, you will find it not only the most useful and instructive, but also the most amusing article you ever expended your money for; and that by its use, while you are acquiring information and experience of the utmost value in your business, you are constantly making a series of exhibitions that amuse and educate every individual member of your family. And thus you will become, by ocular demonstration, personally acquainted with each of the destroyers your crops may be subject to; and by knowing the immediate cause, how much more readily can the remedy be prescribed.

One more fact. When a district is affected with the fly, bug, or worm, to insure a speedy riddance, there must be concert of action. It is the duty of the farmer to not only use his utmost exertions, but to also urge his neigbors to do likewise; for unless there is a general extermination, the whole effort will prove fruitless.

Again a great majority of our agriculturists must give up their prejudices in regard to what they term "*book learning*," and get out of the old see-saw track. We remember to have had farmers tell us that "*father done so, and what was good enough for him is good enough for me.*" Well, sir, we will admit father done so, but if your father had common sense, or his son either, he will readily admit that McCormic's Reaper, a Drill Cultivator, a Threshing Machine, a Sub-soil Plow, and many other improvements in tools, etc., are of incalculable benefit to the farmer—then how much more these valuable theories by which practical science demonstrate the why's and the wherefore's according to the immutable laws of nature. Why is it, that Judge So-and-so or Squire Whats-a-name, always take the premiums at the State and County Fairs? Simply because the judge and the squire, look at the *theoretical* as well as the practical portion of farming. Will the reflecting portion of the tillers of the soil, think deeply on our few last remarks, and each man remember that it is not only his interest *but his duty* to raise full crops.

TO MRS. H. B. J., OF J. C., N. J.

LITTLE Lizzie, winsome Lizzie,
Came one glorious Autumn hour,
When the slanting sunlight, golden,
Played with luscious fruit and flower,—
When the streamlet leapt in gladness,
From its mossy prison freed,
And went rippling out its sweetness,
Over every flowery mead.

Then thy Lizzie, darling Lizzie,
Lay upon thy pulsing breast,
Like a glorious thing of beauty,
Sent at the great God's behest,—
And thy heart, like woodland fountain,
Fed by purest mountain stream,
Leaped forth in joy and gladness,
Flashing in the day-god's beam.

But the slanting sunlight golden
Came again with Autumn days,—
And the earth like one vast altar,
Lay beneath the smoky haze,
That like incense floated upward
To the Great Eternal's throne,
Bearing on its downy pinion,
Little Lizzie's dying moan.

Ah so pale and still she seemeth,
Placid brow, and closed eyes,—
Little arms all meekly folded,—
Statue-like, and cold she lies.

* * * * *

Pile the Earth where ye have laid her,
Rear the tablet, smooth the sod,
Little Lizzie sleepeth sweetly,
In the bosom of her God.

ANN AMATEUR.

Bergen Hill, N. J.

BRADY'S LEAP.

Captain Samuel Brady was the Daniel Boone of Ohio, and was as efficient in the settlement of that State, as his illustrious cotemporary was in establishing the domain of the white man in the State of Kentucky. He entered the army at the commencement of our revolutionary struggle, and was engaged at the siege of Boston, as well as in many other important contests during the war for Independence. He was a lieutenant under Wayne at the massacre of Paoli, when that officer was surprised, and the greater portion of his command cut to pieces and destroyed in cold blood. Toward the close of the war, he was captain of a corps of rangers at Fort Pitt, under Colonel Brodhead, and rendered effectual service against the Indians, who were in league with the British. He had lost a father and brother at the hands of the red skins, and swore to take a terrible revenge.

To a mind fertile in expedient, and quick as a flash of light in its deliberations, he added a frame well knit, though slight, and a constitution of iron mould. He was an Indian-fighter *con amore*, and the greater portion of his time was spent in the war-path. Many are the deeds of daring and thrilling adventure related of him. A volume might be written embracing the adventures and hair-breadth escapes of the gallant captain, but, in common with an immense mass of unwritten tradition equally valuable and interesting, they are fast being forgotten and buried in the graves of the past generation. The following incident, although it has been frequently published, may yet be new to many of our readers.

On one occasion, while out with a small party of his rangers in pursuit of the Indians, he had gone as far as Slippery Rock Creek, a branch of Beaver river, in Western Pennsylvania, without seeing any signs of his foe. Here, however, he struck upon a fresh trail, which led up the creek, and he hastened in pursuit of the savages, who were some distance in advance. He followed the trail until evening, when he was obliged to wait the return of daylight before he could pursue it further. At the earliest dawn he started afresh, and without stopping to break his fast, he hurried on, bent on coming up with the enemy before they could reach their towns. His precipitancy had nearly cost him his life, for although the party in front did not dream of his proximity, yet a body of warriors, far outnumbering his own small band, had discovered *his* trail, and were following it with as much avidity and determination, as he was pursuing their comrades.

Brady discovered those in front, just as they were finishing their morning meal and preparing to renew their journey. Placing his men in such a manner as to intercept them should any attempt to escape, at a given signal they delivered a close and well-directed volley, and started up to rush upon the enemy with their tomahawks, when the band in their rear fired upon them in turn, taking them completely by surprise, killing two of their number and throwing the remainder into confusion. Finding himself thus between two fires, and vastly outnumbered, there was nothing left but flight, and Brady, directing his men to look out for themselves, started off at his topmost speed in the direction of the creek.

The Indians had a long and heavy account to settle with him, however, and deemed this the opportunity to wipe it out with his blood. For this purpose they desired to secure him alive, and fifty red skins, regardless of the others who had scattered in every direction, dropped their rifles and followed him. The Indians knew the ground—Brady did not, and they felt secure of their victim when they saw him run toward the creek, which was at this point a wide, deep and rapid stream. A yell of triumph broke from them as he arrived at the bank and comprehended his desperate situation. There was apparently no escape, and for a moment the captain felt that his time had come. 'Twas but for an instant, however; he well knew the fate which awaited him should he fall into the hands of his enemies, and this reflection nerved him to a deed which, perhaps, in his calmer moments he would have found himself incapable of performing. Gathering all his force into one mighty effort as he approached the brink of the stream, and clinging with a death grip to his trusty rifle, he sprang across the chasm through which the stream run, and landed safely upon the other side, with his rifle in his hand. Quick as thought, his piece was primed, and he commenced to reload. His feet had barely made their imprint upon the soft, yielding soil of the western bank, before his place was filled by the brawny form of a warrior, who, having been foremost in the pursuit, now stood in wonder and amazement as he contemplated the gap over which the captain had passed. With a frankness which seemed not to undervalue the achievement of an enemy, the savage, in tolerable good English exclaimed, "Blady make good jump! Blady make very good jump!" His conflicting emotions of regret at the escape of his intended victim, and admiration of the deed by which that escape had been accomplished, did not hinder the discovery that Brady was engaged in loading his piece, and he did not feel assured but that his compliment would be returned from the muzzle of the captain's rifle. He incontinently took to his heels as he discovered the latter ramming home the bullet, which might the next moment be searching out a vital part in his dusky form, and his erratic movements showed that he entertained no mean idea of his enemy's skill at sharp-shooting. The outline of the most intricate field fortification would convey but a slight idea of the serpentine course he pursued until satisfied that he was out of rifle shot. Sometimes leaping in the air, at others squatting suddenly on his haunches, and availing himself of every shelter, he evinced a lively fear, which doubtless had its origin in a previous knowledge of the fatal accuracy of the captain's aim. Brady had other

views, however, and was not disposed to waste time and powder upon a single enemy, when surrounded by hundreds, and when the next moment an empty barrel might cost him his life; and while the savage was still displaying his agility on the opposite bank, he darted into the woods and made his way to a rendezvous previously fixed upon, where he met the remainder of his party, and they took their way for home, not more than half defeated. It was not a great while before they were again on the war-path, in search of further adventures.

Brady afterwards visited the spot, and, out of curiosity, he measured the stream at the place where he jumped, and found it to measure twenty-three feet from shore to shore, and the water found to be twenty feet deep.

A similar incident is related of Brady in the "Historical Collections of Ohio," as having occurred on the banks of the Cuyahoga, in which it is stated that, as he was crawling up the opposite bank, the Indians fired upon him, and wounded him in the hip, but he managed to staunch the wound and escape, by hiding himself in the hollow trunk of a tree until the search for him was over, when he crawled out, and, after incredible hardship and fatigue, arrived safe at his quarters. The two stories may have had their origin in the same occurrence, but the details are so dissimilar, except in the distance, which is in both cases about twenty-three feet, that it is possible, nay, more than probable, that the captain was called upon to exert his great powers on two separate occasions to save himself from the torture or the stake.

HONOR TO LABOR.

BY XENETTE.

Honor to Labor!—it giveth health;
Honor to Labor!—it bringeth wealth;
Honor to Labor!—our glorious land
Displayeth its trophies on every hand.
It hath smoothed the plains, laid the forests low,
And brightened the vales with the harvest's glow—
Reared cities vast, with their marts of trade,
Where erst undisturbed lay the woodland shade—
Brought up from the depths of the teeming mine
Its treasured stores, in the light to shine—
Sent Commerce forth on her tireless wings
In search of all precious and goodly things,
To the stormy North, with its frost-bound seas,
And to bright isles fanned by the Southern breeze,
Where the Orange deepens its sunset dyes,
And the cocoa ripens 'neath golden skies—
To the bounds of the farthest Austral climes,
Unknown in the records of elder times,
She speeds her flight, and each clime and zone
Yield their rich treasures to bless our own.

Honor to Labor!—it diveth deep
Unto dim sea-depths where bright treasures keep,
And dareth with curious quest to explore
The ancient wonders of Ocean's floor.
It fearless roams over deserts vast,
Where Destruction rides on the simoon's blast,
And trackless sands have for ages frowned
Over cities in ancient song renowned—
Or climbs where the dazzling glaciers lie,
Changeless and cold, neath a glowing sky,
Leaving the trace of its triumphs proud
Above the regions of storm and cloud.

The Ocean, once an unbounded waste,
An awful barrier by man unpassed,
Spread forth to the solemn skies alone
Its restless waters to Man unknown—
Now, a world of life is the glorious Sea,
A peopled world of the brave and free—
Where the proud ship glides like a thing of life
Regardless of tempests and billows' strife,
And countless sails dot the blue expanse
Of waters that flash in the sunbeam's glance.

"Honor to Labor!" the Mariner sings,
As forth on the breezes his sail he flings,
"It hath made us lords of the boundless deep;
Fearlessly over the waves we sweep!"

"Honor to Labor!" the traveler cries,
As away in the rushing car he flies—
"We may rival the speed of the bird's quick wing,
As it joyously soars midst the skies of spring,
And the fetterless wind, on its pinions free,
Is scarcely more fleet in its course than we!"

Honor to Labor!—the active press
Pours forth its treasures the mind to bless.
From the pictured page, where the child's glad eye
Findeth a world of bright imagery,
To the massive tome midst whose treasures vast
Lie the time-dimmed records of ages past,
The ever restless and eager mind
Exhaustless supplies for its wants may find.

It may turn to the Past, unto ages flown,
And hold communion with years by-gone—
Old climes of Historic fame explore,
And gather the gems of their buried lore—
With prophet bards seek inspiring dreams,
Or muse alone by old fabled streams—
With the Poet take his enraptured flight,
And woo the muse on Parnassus' height—
Take fair Philosophy by the hand,
And roam with her through her native land,
Till the mental stores of all ages flown,
And all gifted minds it has made its own

Honor to Labor of body or mind,
Hath it but for its object the good of mankind!
The farmer, who cheerily ploughs the soil,
Or gathers the fruit of his hopeful toil—
The strong mechanic, whose manly brow
Weareth of labor the healthful glow—
The bold Inventor, beneath whose hands
The useful engine completed stands—
The Artist, who with unrivalled skill
Creations of loveliness forms at will—
The pale-faced student who, worn with toil,
Consumes o'er his studies the midnight oil—
The man of Science, with earnest mind,
Who toils to enlighten and bless mankind—
To themselves—to their race—to their country true
Honor, all honor to such is due.

Albion, Michigan, May, 1855.

WRECKING AND WRECKERS.

The number of vessels wrecked on the Florida Reef, and the arrivals in distress at the port of Key West, the wrecking emporium of the Union, during the year 1854, were sixty-four. The aggregate value of these vessels is stated at $974,000, and the value of their cargoes at $1,268,454—making the total valuation of vessels and cargoes $2,242,454. The expenses of the cargoes while in the port of Key West were $19,888 68, and the expenses of the vessels $49,148 25; total, $69,036 93. The amount realized from sales of damaged cargoes was $38,038 23; the amount of salvage awarded the wreckers $88,921 87, and the total losses on vessels and cargoes $432,167 42.

The Florida Archipelago consists of a chain of islands along and around the southern point of Florida, extending from Cape Florida to the Tortugas—a distance of about two hundred miles. Outside of these islands, and at a distance from them of about eight miles, lies the Florida Reef—a ledge of rocks lying underneath the surface, at depths averaging in different places from two to eighteen and thirty feet. This reef may be properly regarded as the northern wall or bank of the Gulf Stream—having Cuba and the Behama Islands for the southern and eastern banks. Between Key West and Cuba this oceanic stream is about eighty miles wide; at Cape Florida it is narrowed to about forty-five miles. It is the outlet of the great Bay or Gulf of Mexico, and the commerce of New Orleans and the other Gulf ports, with much of the gold of California, passes through it. The value of this commerce has been estimated at not less than four hundred millions of dollars annually. A current commences in the Gulf Stream off Tortugas, and runs easterly and northerly at the rate, commonly, of three or four knots an hour, but it is very irregular in its rapidity and direction; and in consequence of these irregularities, the narrowness of the channel, bad weather, and probably, in some instances, the carelessness of navigators, many ships and vessels get ashore upon the reef, and are either totally lost, or are lightened and got off by wreckers. Many vessels also put into Key West in a leaky and disabled condition.

The persons employed in saving this property are technically called wreckers, and about two hundred and fifty of them are constantly and exclusively employed in sailing about the islands and reefs, in little sloops or schooners of about sixty tuns burden. Some one or more of them visit every dangerous reef every day, so that a vessel does not long remain in trouble before a helping hand is extended to her. If the assistance of wreckers be accepted, they generally lighten the ship, carry out anchors, and get the vessel off; or if she be lost on the rocks, they save the cargo, the passengers and crew, and carry them to Key West, where salvage is awarded by the United States District Judge for the saving of the vessel and cargo, but no charge is or can be made, or any salvage allowed for saving the lives of crews, passengers, and their baggage.

Considering the large amount of property saved from total destruction, and the many lives of passengers and crews rescued from death by these wreckers, no one can fail to be impressed with the importance and heroic daring of their vocation. To the cause of humanity, and to the interests of commerce, their services are invaluable. And no other class of men are exposed to greater temptations to embezzlement and fraud, for large amounts of property are constantly committed to their possession without any receipt or proof, in the haste and confusion of shipwreck, and yet no complaints are ever made of depredations on the property, or the commission of any rudeness or discourtesy to passengers by these wreckers—a fact creditable to them in an eminent degree, although it may, perhaps, be attributable in part to another fact, that the compensation for their services is awarded them by the Court, and that their conduct is rigidly investigated and scrutinized.

The National Government has erected several light-houses at different points along the Florida Reef, which are of immense benefit to navigation on this dangerous coast; and the United States Coast Survey is now employed in surveying and locating upon charts the exact position of every island and reef lying between Cape Florida and the Tortugas Islands, which will be an invaluable guide and security to the four hundred millions worth of property that annually floats along this ocean stream.

The Honorable William Marvin is now, and has been for nearly twenty years, the United States District Judge at Key West; and we have before had occasion to speak of his high judicial integrity and ability. He has exclusive jurisdiction in all Admiralty cases, and his decisions are final in all cases where the amount is less than two thousand dollars. The business of his Court is almost entirely devoted to matters growing out of wrecking. He awards salvage, and the amount thereof; he settles consortships, and apportions the salvage moneys among the owners, masters and crews of vessels; he supervises and audits the commission and wharfage charges—and all without the intervention of a Jury. His official position, therefore, is not simply a responsible one, but it has a direct and personal responsibility, which is neither shared nor relieved by the interposition of a Jury between himself and the parties litigant. Nearly every man upon the island is directly or indirectly interested in every wreck, and in the award of the most liberal salvage, and it requires a judge of great moral courage and incorruptible integrity to resist the influences surrounding and assailing him. And it is due to Judge Marvin to say that his honest, fearless and able administration of the wrecking jurisprudence at Key West has had a most potent and remedial influence upon the wrecking business.—*Tribune.*

COL. BUTLER AND THE INEBRIATE.

THE BATTLE OF WYOMING.

Who is there that has read Campbell's beautiful poem, "Gertrude of Wyoming," and not risen from its perusal with feelings the most bitter, a hatred the most intense, toward the band of white and red savages who laid waste and depopulated that beautiful valley. Yet it is more than probable that, could the facts be divested of those distorted positions and extravagant coloring which the excited fancies of the fugitives gave them, we should find much, that has rendered the story one of the most thrilling on record, to be mere fable. Enough is true, however, to stir up the blood and awaken the liveliest emotions of anguish, in perusing the history of the valley, as written by an unbiased and careful pen. Replete with incident, it has furnished the pencil of the artist with innumerable subjects, full of action and bold relief; and among many others of thrilling interest, the little circumstance represented in the engraving, will serve to convey an idea of the peculiar position of some of the actors in that memorable fight and rout.

When the enemy, consisting of eleven hundred tories and Indians, under command of Colonel John Butler, arrived in the vicinity of the valley, they found it undefended by any force which could be considered respectable, and, feeling secure of their prey, they made their head-quarters at a fortified house called Wintermoot's fort, sent out scouts and foraging parties, and gave themselves up to riot and debauchery. The inhabitants, finding themselves deserted by Congress, and thrown upon their own exertions to defend their homes from the torch, and themselves, their wives and children, from the tomahawks of the savages, resolved, as the only hope of success, to march out and attack the foe while lulled in fancied security. Their whole force, consisting of about three hundred, old men, young men and boys, divided into six companies, and under command of Colonel Zebulon Butler, who happened to be in the Valley at the time, marched out of Forty Fort. The women, children, and a few old men were left in the fort to await, with feelings of the most intense anxiety, the issue of a battle on which depended their lives. The little force was joined by the justices of the courts, and every male inhabitant capable of bearing arms, and marched forward to the contest, strong in determination, if not in numbers. The object was to surprise the enemy in his camp, and gain by stratagem what they lacked in strength. Colonel John Butler was not to be caught napping, however, and although encamped in a very irregular manner, and exposed to sudden surprise, yet his scouts had informed him of the march of the little army, and when they arrived in the vicinity of Wintermoot's, they found his line drawn up prepared to receive them. There was no alternative but to fight, and the little force was wheeled into line and harangued by their brave commander. "Men," said he, "yonder is the enemy. The fate of the Hardings tells us what we have to expect if defeated. We come out to fight, not only for liberty, but for life itself, and, what is dearer, to preserve our homes from conflagration and our women and children from the tomahawk. Stand firm the first shock, and the Indians will give way. Every man to his duty."

It was about four o'clock of a hot, sultry afternoon, when the battle commenced by an attack on the enemy's left wing. The contest was short, sharp and bloody. For half an hour it was kept up with the utmost spirit and determination, and promised success to the Americans, but an unfortunate mistake of an order threw the victory into the hands of the enemy. Colonel Denison, who commanded the American left, finding the Indians who opposed him were outflanking him and getting into his rear, gave the order to "fall back," in order to change his position. This was understood as an order to retreat, and was repeated with increasing emphasis along the line. Fatal error! A few moments more and the enemy's left, which was composed of tories, would have given way, and the Indians would have retreated also. The damage was irretrievably done, however, and no exhortations or commands, could rally the broken division. The Indians sprang from their coverts in a cloud, and fell upon the retreating Americans, cutting them down by scores; and now commenced that fearful massacre which makes the blood run chilled through the veins as we read. Desperation lent wings to the flying fugitives, while "fury raged, and shuddering pity quit the sanguine field."

Finding his efforts to rally the retreating Americans unavailing, and hoping to be able to collect a sufficient number to defend the fort until assistance could arrive, Colonel Zebulon Butler, who had exposed himself to the fiercest of the battle without regard to his personal safety, turned his horse's head in that direction, and hastened forward to the garrison. As he was speeding along the road toward the fort, he overtook an Indian warrior in pursuit of one of his men, who, almost exhausted, would in a few moments have yielded, from utter exhaustion, his scalp to the knife of his pursuer. Having either lost his sword, or there being no time to use it, Butler was compelled to pass the Indian without attacking him. The danger was too imminent to allow him to stop for the man, and he was obliged to pass him also. Despair gave momentary strength and renewed activity, however, to the latter, and springing forward he seized the long tail of the Colonel's horse with the grip of a vice, and held on with the tenacity of Death. The Indian still continued to pursue, hoping, probably, that something would "turn up" to his advantage. Something did turn up, but not as he anticipated.

It happened in the morning, when the little force of defenders marched out to the contest, one of the number, having in his endeavors to

raise his latent courage, indulged too freely in his libations, had laid down by the side of a fallen tree and fell asleep, while his comrades marched forward and left him. While his friends were selling their lives in defense of their homes, their wives and children—their all, he was snugly sleeping by the side of the road, a mile from the scene of strife. The stupor had worn off, however, and as Butler came up, he was rubbing his eyes to endeavor to clear up the mist which enshrouded his faculties. Perceiving at a glance the state of the case, Colonel Butler, as he passed the spot, leaned forward and shouted to the man to kill the Indian. With a coolness which would have won him laurels in the battle, the inebriate, resting his elbow on the trunk of the fallen tree, took deliberate aim at the breast of the pursuer, and a moment after he rolled in the dust, dead. Then, as if he had just discovered the relative position of affairs, he took to his heels and pushed onward at his utmost speed after the colonel.

When the fort was invested by the enemy, a few days afterward, and Butler found it untenable, he managed to escape therefrom, and started for the army to bring relief to the garrison.

THE POST OFFICE

IN THE UNITED STATES AND ENGLAND.

[SCARCELY any subject "comes home to the business and bosoms" of the whole people of this great Republic more emphatically than the system of postal arrangements, which have an immense bearing upon business facilities of every class, upon the culture of social and friendly relations among individuals, separated in different and distant parts of the country, and upon the general diffusion of "intelligence," which one of our earlier orators has said is the "very life of liberty." The following article, therefore, though somewhat elaborate, and rather of the *solid* cast, we believe will be read with general interest, as it certainly embodies a large amount of valuable information. We need more Post Office reform. A uniform two cent postage for letters, to all parts of the Union, is the mark to which we must come. The following paper was read before the New York Geographical and Statistical Society, on the 5th of April, by Pliny Miles, Esq., who has been connected with the Post Office Department at Washington for some time, and has been to Europe, and taken much pains to collect postal facts and statistics, which it is his intention to give to the public before long in a more extended book form. In the meantime, we are indebted to Mr. Miles for the opportunity of publishing this instructive paper in the UNITED STATES MAGAZINE.]

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IN preparing a paper on the Post Office and postal communication, there are two different views that might be taken of the subject, either of which would be of interest. The "Romance of the Post," anecdotes, and singular historical and personal narratives, would form a chapter of real life, more interesting, perhaps, than any branch of personal, general or literary history. The flying posts, carried on by means of swallows, falcons, or more usually by carrier pigeons, the ingenious devices and methods of conveying written intelligence secretly and safely, the vast importance of a single scrap of paper or parchment, the treasons, revolutions and revolts, the safety of the lives, not only of individuals, but of armies, that often rest on a single piece of written intelligence, all show the value and importance that has ever been attached to postal communication. Autocrats, tyrants, despotic, civil and ecclesiastical rulers, have ever sought to control an engine that possessed the power and ubiquity of the Post Office. We see reference to postal affairs in the earliest written history, both sacred and profane. We find the Post spoken of as a symbol of rapidity and fleetness. Job says "my days are swifter than a post. They are passed away as the swift ships, as the eagle that hasteth to the prey." In using this comparison, it is evident that the aged patriarch had no acquaintance with, or idea of, many of the slow posts of modern times.

In prosecuting my inquiries into the history of postal affairs during last year, I searched the voluminous catalogues of the British Museum Library, and, though the information I obtained was quite scanty, it was very interesting and satisfactory. My search was rewarded with two books: both very small volumes, and each several hundred years old, but they both seemed to give a kind of prophetic indication of persons and opinions in our own times. One of the books appeared under this title:—

"The Post of the World, wherein is contayned the antiquities and originall of the most famous cities in Europe, with their trade and trafficke, with their wayes and distance of myles from country to country, with the true and perfect knowledge of their Coynes, the places of their Mynts: with all their Martes and Fayres. And the Raignes of all the Kings of England. A book right necessary and profitable for all sorts of persons, the like before this time not imprinted.

Published by Richard Rowlands.
Imprinted at London by Thomas East, 1576."

There is a singular coincidence, to say the least, in the author of this book, one of the earliest, if not the earliest in English and by an Englishman, on the subject of the Post, having the name of *Rowlands*, while in later and more favored times, the British nation and the world are indebted to a Mr. *Rowland Hill* for the greatest national improvement of the age, the successful introduction of cheap and uniform postage, a system, the effects of which are felt wherever the English language extends, to the remotest corners of the Christian world.

The other volume on the Post would seem to be quite prophetic. The title of it was in these words:—

No Post from Heaven,
Nor yet from Hell.

It perhaps "needs no ghost to come from the grave to tell us this," nor even "spirits from the vasty deep," and yet there are certain modern philosophers that would fain rap such ideas into our heads, and make us believe that if not a direct postal communication, there is at least a sort of spiritual telegraph to the unseen world.

The modern railway train does not furnish the only post of danger in attending to the Post. We read of a man in the time of Henry VIII., riding post to Scotland by way of Berwick-upon-Tweed. At that time James V. was King of Scotland, the famous Cardinal Beaton was the Pope's bishop there, and resided at St. Andrews, and troubles had already commenced between King Henry and the Pope, Paul III. Letters and despatches were sent by relays of men, starting from different stations. The bearer of the letters was called "the Post," and at this time was taking important despatches from King Henry to his ambassador in Scotland, Sir Ralph Sadler. A little north of Berwick, the Post was seized by some spies in the employ of Cardinal Beaton, and they threatened, then and there, to hang him up, with all his letters about his neck. They did not, however, make an exhibition of a Post in a state of suspension, but carried the letters to the Cardinal, and let the Post go free. He related his mishap; the cardinal opened the letters, found them written in a cipher, kept them some days, and on a threat from the King, delivered them up to the Ambassador.

But I have to deal with modern postal affairs, not with ancient. However tempting the stories and anecdotes of the past may be, I shall pass them by, and occupy your hour in examining the past history, present condition, and future prospects of the United States Post Office.

Nearly all seem to feel, and no one can deny that rapid and secure postal intercouse is of great importance, but comparatively few realize the great value of a postal system in its highest perfection. The vast difference between a good system and a poor one is scarcely appreciated by the great mass of our population, in the comparatively imperfect postal system of this country.

You have often heard comparisons made between the Post Offices of Great Britain and the United States, and high encomiums bestowed on the latter. I trust that no one is disposed to say that these encomiums are not well deserved; and I hope, by a consideration of various incontrovertible facts, to show you that the difference between the British system and our own is yet greater than is usually considered. I trust, also, that a full examination of the two systems will convince you not only of the vast superiority of the English Post Office, but that a great majority of their improvements are perfectly practicable with us.

It is hoped that the grounds taken, and the conclusions drawn, will not be looked upon as an affectation of any particular individual sagacity or wisdom, or that what I say will be considered as a general fault-finding with either the framers or administrators of our postal laws.

We learn by the example of others far more than by any intuitive perception in ourselves, and while seeking for truth, the more we have sound arguments and appropriate facts brought to our view, the more shall we be aided in our search.

A single remark is vouchsafed to those profound logicians who contend that we can have none of the improvements of the English postal system, because, in fact, *this is a great country*, and the island of Great Britain, measured by our standard, is a small one. The political Bunsbys of the day are informed that I shall not attempt to prove that the distance from New York to St. Louis, or from Bangor to San Francisco, is as short, or as quickly traveled as the iron road from London to Liverpool, or the steam voyage from Westminster bridge to Woolwich dock. While making comparisons between the English postal service and our own, I shall endeavor to bear in mind the different circumstances that govern the traffic of the two countries. No one will deny that our postal wants are as great as those of the inhabitants of the British isles; and, in fact, postal communication is of far higher importance with us, where distances are so great, and personal intercourse attended with greater expense and

inconvenience. Our intellectual activity, and our social wants as a people, if not superior to all other nations, certainly cannot be ranked behind. It will strike many as not only an important and interesting fact, but as quite an inexplicable one, that from the first organization of our national government to the present time, our correspondence and postal intercourse, the uses of the Post Office have increased from nine to sixty times as fast as either the population, the government income and expenditure, the exports, or any other branch of national affairs. Our population, between 1790 and 1850, increased seven-fold, our exports twelve-fold, and postal correspondence four hundred and forty-fold. The actual percentage of increase of our letter communication by mail from 1790 to 1850 was 43,965! The figures that show most clearly the far greater activity and larger increase of our postal intercourse beyond the increase of population, wealth, and national income and expenditure, are these,—During each ten years, since 1790, the average increase of the population of the country has been 34 per cent., the exports 42 per cent., the expenses of government 95 per cent., the Post Office revenue 120 per cent., and the number of letters sent by mail, 140 per cent. This is the average increase during each of the six periods of ten years from 1790 to 1850.

. Thus, while our population has increased in sixty years, seven-fold, letter correspondence by mail has increased four hundred and forty-fold, or sixty-three times as fast as our population. In the year 1790, there were sent by mail in the United States, about 560,000 letters, and during the year 1854, over 100,000,000. After all these gratifying evidences of the increased value and use of our postal system, how will you be prepared for the fact that during the last four years, since 1850, the inhabitants of Great Britain wrote and sent by mail, 200,000,000 more letters than we have sent through our mails since the organization of our government, more than sixty-five years ago? Is this a good comparison between our government and that of Great Britain? between our population, where the benefits of education are extended to all, and the population of the British Isles, where at least one half of all that marry cannot sign their names to the marriage register, but are obliged to make their mark? According to the official postal statistics of 1851–2 and '53, the population of Great Britain write and send by mail four letters where our people write one. Each thousand persons in Great Britain, write on the average 14,760 letters annually, while each thousand of the population of the United States write 4,121, or only about four letters to each man, woman and child in the country. In London, there are forty-one letters written to each individual, while in New York there are but twenty-three. This is according to the report of 1852.

The members of the Geographical and Statistical Society are well aware of the value and importance of statistics; and though I shall not read the formidable columns of figures that I have, a copy of them will be furnished if desired, to preserve with the papers and transactions of the society. The figures given are from official reports, and may be relied on. When any facts or data are required for which there are no official tables, careful estimates have been made, but in all cases the estimates are given as such, and not as official reports.

With the aid of Horatio King and John Marron, Esqrs., the able and efficient first and third assistant postmasters general, I have prepared a table of estimates of the number of letters sent through the mail since the year 1789. The estimate cannot vary from the actual number either way, probably more than five to ten per cent. The number, in 1790, is given as 265,545, in 1800, about two millions, in 1815, over seven millions, in 1825, ten millions, in 1840, forty millions, and during the last year, 119,634,418. In Great Britain, the year before last, the number of letters written and sent by mail was 410,000,000. During the sixty-five years from 1790 to 1855, the number of letters sent through the mails in the United States, according to our estimate, is 1,393,930,814. During that time the number of our Post Offices has increased from 75 to 24,000 and the length of post roads over which the mail is carried, from 1,875 miles to 219,935 miles. The postal revenue, in 1790, was $37,935, less than five times the present salary of the Postmaster-General, and during the year 1854, the income from letters alone was over six million dollars. But with all the improvements, and the constantly increasing demands upon our Post Office, it is evident that there is something lacking in our postal system, some good reason independent of long distances and scattering population, why our people only use our Post Office to one-fourth the extent that the population of Great Britain do theirs. I shall not argue that the expenses of our Post Office should be thrown on the Treasury, like the other departments of government, though there are many and powerful reasons why this most necessary of all our national transactions should be conducted with the highest degree of efficiency, without regard to the cost.

I am positive that a lower rate of postage than we now have, with a well-organized system, and an economical administration of its affairs, will fully meet all the necessary expenses of the postal service, and, at the same time, give postal facilities and accommodations to the public, to a far greater extent than we have ever had. I wish to take no view of the subject but a purely financial one, and am confident that we can double the accommodations we have at present, and for less money than we now pay. The fact that I have lived several years in great Britain, and had a large correspondence through the post office there, and, since that time, had a full opportunity to become acquainted with our own postal system, by holding an official position in the Post Office Department at Washington, makes me speak with greater confidence than I should from only a theoretical knowledge of either or both systems.

When the country was new, and there was now and then a village or a small settlement scattered here and there in the wilderness, no one could reasonably expect the post to be in close proximity to every house, and many families were necessarily, ten, twenty or fifty miles from a post office.

With all due deference to those who had the framing of our postal laws, there has not been one single step made in advance of that system, which gives a single post office, in each town, city and village, and which obliges every one to go after his letters, no matter how dense the population, or how large the place. Every improvement has consisted in extending the means of transportation, and increasing the size of post offices, as the country became more thickly and widely populated. Not one single facility for local distribution of letters in large places has been given; no sub-post offices or receiving houses, no legally authorized and paid letter-carriers, but precisely the same local accommodations that were enjoyed by our ancestors one hundred years ago.

When New York was a village of a few thousand inhabitants, on the lower end of Manhattan Island, some Dutch burgomaster, local magistrate, or colonial governor, set up a post office near where Wall street now runs. A few steps would bring every citizen from his house, or store, to the post office, and when a vessel happened to arrive from Europe with "three months' later news" than the packet ninety days previous had brought, there was a foreign mail, and the event was so important and so rare, that all would assemble to get their letters, talk over the news, and compare notes. When, once in a week, or, perhaps, once in two weeks, a post arrived from Albany, from Boston, or from Philadelphia, there was a mail from the country, and another gathering took place at the post office, and letters were again delivered. Since those days the American colonies have grown to a mighty empire. New York numbers about 700,000 inhabitants, and a dense population extends for more than six miles, while villages, schools and habitations, are scattered along the entire length of the Island. And what are the present post office accommodations for this great metropolis—this modern Babylon? Why, precisely what they were in the days of the Dutch governors of New Amsterdam one hundred and fifty years ago. There are Wall and Front streets, Nassau and William streets, and there stands THE Post office, and every letter that is mailed, and every letter that is received, must be sent to that locality, or called for there, unless it is trusted to some uncertain, unofficial and precarious source. Yes, New York city has just one post office; London, with about three times the population, has 498 post offices; Manchester, with about half the population of New York, has 107; Liverpool has 56, Bristol 90, and Glasgow 77. This is a direct comparison between an American and an English city. Now, I respectfully submit that the business of the local circulation of letters with us is precisely parallel with that in the cities of Great Britain, and subject to the same financial laws, considered as a subject of public and private economy. What will answer best in the one case, evidently will in the other. But how widely different are the two systems—theirs and ours. And as widely different are the results. Their local circulation is aided, fostered and carried on by means of sub-post offices, receiving houses, and letter-carriers, while we have none of them. Their local circulation of letters is more than one hundred times as great as ours, is a source of large profit to the Post Office Department, and, at the same time, furnishes the greatest accommodations to all their citizens. Our local circulation,

on the other hand, pays nothing to the Department, and our citizens are not accommodated. We are not required by courtesy, truth, or the circumstances of the case, to speak of the few irresponsible persons that go about our cities, delivering letters and papers for a fee to those who choose to employ and trust them, as a part of our postal system. Nor can we, by any stretch of the imagination, call those places post offices where, in Broadway and Union Square, persons that hold no commission under government, are permitted to receive and forward letters to the city post office, provided they are paid a separate postage for it. Few trust them —there is no official responsibility, and in no respect can they be called a part of our national post office, any more than a servant would be who should be hired to call every day at house or office, get our letters, mail them, and bring ours from the office on his return.

It is a great mistake to suppose that letter carriers and letter receivers are a charge on the postal revenue. On the other hand, they are a source of large profit, and by means of them, correspondence is increased far more than the amount of their salaries. But were they a direct expense, and were it an expense of a million dollars per annum to have letter-carriers and letter-receivers in our cities and towns, I venture to say that it is as much the duty of government to furnish them, as it is the business of government to keep up a postal system, after making it illegal for States, communities or private parties to do it for themselves. But there is no consideration of that kind. There is no extra expense, as I shall proceed to show. Let us imagine for argument's sake, that we have a uniform rate of postage of two cents for each single letter, without regard to distance; "drop letters" the same as letters for all distances throughout the country. Now, all could afford to pay two cents for each drop letter, if every letter for the longest distances in the country went for the same money. In this case we are supposing that we have a universal letter-delivery, and sub-post offices and receiving houses at convenient distances in all cities and large towns. By this arrangement we save all our box-rent at post offices; we have a safer conveyance of our letters than to have them entrusted to our servants; we get all our letters from 33 to 80 per cent. cheaper than we do at present rates, and for the merely local letters—drop letters—we pay no more than we now do if we receive them by the irresponsible letter-carriers that are suffered to go about our cities. We see the convenience and the economy of it, so far as the public are concerned; and now let us notice the financial results on the post office. As in other branches of postal service, we can judge of it by seeing its operation in Great Britain. I have shown you, by reference to the figures, the far greater number of letters written and sent by mail in Great Britain than with us. There, as here, all the profit of the Post Office Department is made by the correspondence of the cities and towns. But, there, so much superior is their system to ours, they write about as many letters in one city—in London alone—as we do throughout our vast and extended country. They have a local circulation of letters—a circulation that depends almost entirely on letter-carriers and letter receivers, and which increases their correspondence, and enhances the profits of their postal system, far beyond the entire postal traffic of the whole United States.

Will it be readily believed that the "drop-letters" of the city of London alone amount to more than fifty times as many as the "drop-letters" of the whole United States? Such is the actual fact. Here are the figures from the official reports of the two countries:—The "drop-letters" in London, in 1851, numbered 40,585,952, while the number in the United States, according to the official report of the same year, was 715,428—less than a fifty-sixth part of those in London alone. The entire number of letters mailed in London, during 1851, for both local and general circulation was 88,405,461, while in the whole United States, during the same year, there were but 95,790,524. The local circulation of letters in cities, is almost entirely dependent on the letter-carriers and the letter-receivers—keepers of the small local "receiving houses," where letters are mailed. Then, as we have seen that our local circulation of letters is a mere nothing, and that in English cities very large, we must admit that what is paid for such local letters, beyond the wages of carriers and receivers, is clear profit. Besides all this, they receive all the letters for country circulation, and add considerable to that circulation, beyond being of immense accommodation and incalculable advantage to the public.

The letter-carriers and receivers in London, with their wages, are as follows:—

	NO.	SALARIES.
Letter Carriers,	1,385	$470,275
Letter Receivers,	498	91,435
Total Carriers and Receivers,	1,883	$561,710
The postage on London local letters, is,		$1,225,000

This shows a clear profit of over $600,000 on London "drop letters." Besides the vast convenience to the public, more than one half of the postage on such letters is clear profit to the Post Office Department. The following statement gives the number and salaries of all the letter-carriers of Great Britain:—

	NO.	SALARIES.
Letter Carriers in cities and towns,	4,395	$804,515
Letter Carriers in rural and suburban districts,	4,326	601,420
Total in the United Kingdom,	8,721	$1,405,935

Here we see that the profits on the "drop-letters" in London alone, pay more than six-sevenths of the salaries of the 8721 letter-carriers of the United Kingdom.

The following table gives the population, the receipts from postages, the entire local expenses —pay of postmasters, clerks, letter-carriers and receivers, and contingent expenses—all, except expenses of transportation—in the several places mentioned, in the year 1854, the last column showing the per centage of expenses, or proportion that the Post Office expenses bear to the receipts:—

PLACES.	POPULATION.	RECEIPTS.	EXPENSES.	PER CT.
London,	2,362,236	$6,109,651	$1,078,290	17
Liverpool,	375,955	482,725	70,145	14
Manchester,	316,213	383,985	63,825	16
Birmingham,	232,841	192,768	36,820	19
Bristol,	137,328	148,763	30,790	20
Preston,	72,136	33,766	7,000	20
Leicester,	60,584	36,496	8,245	22
Limerick,	53,448	37,357	8,405	22
Total [the 8 cities],	3,610,731	$7,425,711	$1,303,520	17
Rest of Kingdom,	24,222,760	$5,743,012	$2,030,000	35
The entire Kingdom	27,833,501	$13,159,723	$3,333,520	25
New York,	515,547	$619,143	$130,175	21
Philadelphia,	340,045	201,891	40,254	20
Baltimore	169,054	136,581	35,023	25
Boston,	136,881	194,943	54,779	29
New Orleans,	116,375	96,309	34,031	35
Cincinnati,	115,436	85,423	27,121	32
St. Louis,	77,860	45,632	21,220	46
San Francisco,	34,776	93,737	55,865	61
Total [the 8 cities],	1,505,974	$1,473,659	$408,468	28
Rest of U. States,	21,685,902	4,781,927	2,590,948	54
Entire U. States,	20,191,876	6,255,586	2,999,516	48

We see by the above figures that eight of the large cities of Great Britain, containing only 13 per cent. of the population, contribute 56 per cent, or more than one half of the entire postal income of the kingdom. While the receipts in these cities amount to 56 per cent., the expenses are only 39 per cent. of the entire local postal expenditures. The eight American cities contain 6 per cent. of the population of the country, and contribute 23 per cent. to the postal income, while the expenses are but 13 per cent. of the local post office expenditures.

The following table gives a different arrangement and different dates. The population is the same, according to the census of 1850; the receipts of the American offices, according to the official report of 1851, the number of letters according to the report of 1852, and the receipts and letters in the offices of Great Britain, according to the report of 1853. Reports for all these places could not be obtained for the same year, but the conclusions we arrive at will differ very little in consequence of the difference of dates. The last two columns give the sum of money paid, and the number of letters written by each thousand persons in the average of the population:—

PLACES.	POPULATION.	RECEIPTS.	NO. OF LETTERS.	REC'S PER 1000	LET'S PER 1000
London,	2,362,256	$5,641,414	97,218,337	$2338	41160
Liverpool,	375,955	447,797	14,204,545	1194	37778
Manch'r,	316,213	366,049	11,810,604	1158	37375
Birm'ham	232,841	175,085	5,745,700	754	24660
Preston,	72,136	31,646	1,032,621	439	14342
Leicester,	60,584	33,856	1,097,160	564	17986
Limerick,	53,448	33,001	1,064,890	634	20092
7 cities,	3,473,413	6,728,848	132,173,957	1937	38029
Kingdom,	27,833,501	12,872,040	410,817,489	462	14760
Do. except London,	25,471,265	7,230,626	313,599,152	284	12312
New York	515,547	$531,831	12,357,118	$1032	23948
Philadel.	340,045	197,019	4,760,395	579	14001
Boston,	136,881	176,757	4,485,245	1300	32739
Baltimore	169,054	99,671	1,732,743	539	10253
N. Orleans	116,375	117,887	1,835,708	1016	15825
5 cities,	1,277,902	1,123,165	25,171,209	880	19696
B. of U. S.	21,913,974	3,892,874	70,619,316	178	3223
U. States,	23,191,876	5,016,039	95,790,524	216	4131

We see here the vast disparity in the use of the post office in the two countries. While the population of Great Britain averages nearly 15 letters to a person annually, the American population averages 4 letters to a person. The residents of the 7 cities of Great Britain write 38 letters to a person annually, while our city population write but 19. We see with us as in Great Britain, it is the cities that the Post Office Department is principally dependent on for postal receipts and postal profits, and yet so far from having this local circulation fostered, drawn out, and, as it were, harvested, both for the profit of the Department and the convenience of the citizens, it is entirely neglected. Would it be believed in any country in Europe, were any person to be told that we have not one particle more postal accommodation, or post-offices any nearer together on New York Island, with a population of 600,000 people than in any of our country districts? We have more Post Office clerks here, certainly, as there must be to do the work, but that is simply laboring persons in proportion to the amount of labor to be done, and not an extension of postal accommodations. It is a positive fact that in many country districts they have Post Offices nearer together than we have here on New York Island. There is the same paucity of postal ac-

commodations in Boston, Philadelphia, Baltimore and other cities. I mentioned this lack of local sub-offices and receiving houses to Mr. Rowland Hill during our conversation in November last, and he laughed and said really he was not aware how far behind hand we were in postal facilities. The following figures show the number of employed persons, their salaries, and the local expenses of the Post Offices of Great Britain :—

	NO.	SALARIES.
Postmasters,	974	$431,305
Clerks, Stampers, and Sorters,	1,882	857,010
Total in the 974 Post Offices,	2,855	1,288,315
Sub-Postmasters and Letter Receivers,	8,561	473,485
Letter Carriers in Cities and Towns,	4,396	804,515
Letter Carriers in Rural Districts,	4,326	601,420
Total Carriers and Receivers,	17,282	1,879,420
Contingent Expenses,		165,785
Grand Total,	20,138	3,333,520

Here are more than 20,000 persons employed in the Post Offices and sub-post offices of Great Britain and in the delivery of letters, and of these, over 17,000 are letter carriers and letter receivers. Their wages amount to nearly $1,900,000, and yet the profit on local letters in London alone furnishes two-thirds of the entire sum. Can there be a doubt but the letter carriers and letter receivers in Great Britain are a source of immense profit to the Post Office Department, aside from the convenience to the public ?

I have dwelt at greater length on this branch of the subject in consequence of its possessing a two-fold interest; one of convenience to the citizen, and, in fact, a right to demand, and the weighty reason that it will have so good an effect on the balance sheet of the Post Office Department. Let our system once pay its way well and the Administration of the Department and Congress will be ready to increase our postal facilities, and multiply the Post Office conveniences, not only in our cities but in our rural districts and back settlements. But it scarcely seems to be appreciated that unless our postal system is made what it should be—made to accommodate the public—that it never can be supported well, or show a fair balance sheet at the end of the year. At every request to extend postal facilities to our citizens, whether in the large cities or in the frontier towns, there is one reply; and that is "there is no money, the Post Office is in debt, and you cannot be accommodated." Very likely, if we had not more than half the Post Offices that we now have, and our mails were to go at only half the speed they do at present, we should find the Department five millions in debt at the end of the year instead of two. Cut off two-thirds and three-fourths of the postal facilities that we now have, and very likely our mail bags would be empty, and Postmasters have nothing to do. But give increased facilities for correspondence in our large cities and towns, give us low and uniform postage, rapid conveyance and punctuality in delivery, and give us letter carriers and receiving houses; cut off the franking privilege and have Government pay its own postages, and see then if we cannot have a self-sustaining Post Office.

The great postal reform so auspiciously introduced by Mr. Rowland Hill, in Great Britain, in 1840, is very imperfectly appreciated in this country. There seems to be a very general impression that that reform consisted in the introduction of a low rate of postage—the penny postage. Part of the improvement did consist of a cheap postage, but the ground work of the reform was in UNIFORMITY OF POSTAGE. By uniform rates of postage, labor was so simplified, that in proportion to the circulation, there was an actual saving of more than two-thirds of the expense. It is not asserting too much to say that we have no appreciation of the vast benefits of uniformity of postage in simplifying labor and reducing the expenses of our postal system. We do not know the enormous tax that we pay for the extra useless labor entailed on our postal system, through this lack of uniformity. Were we to assert that there was positively four times the labor and expense of receiving, stamping and mailing letters, supplying stationery, and attending to the various duties in our post offices, that there is in Great Britain, we should undoubtedly be asked for proof. And proof we can give. There is no difficulty in arriving at the correct cost of each branch of the postal service and finding the amount of labor as well as expense in each. In mail transportation there is a difference between our country and Great Britain. But in the internal arrangements of the Post Offices, and the duties of receiving, stamping and delivering letters, the cases are certainly parallel. The entire expense of the British Post Office, in 1853, was $7,003,399. This was made up of the following items :—

Conveyance of the mails	$2,868,585
Surveyors, or Special Agents	165,685
Colonial postal expenses	87,775
Expenses of the money order office	362,625
Letter carriers	1,405,935
General Post Office and miscellaneous	972,574
Total General expenses	$5,864,289
Compensation to Postmasters, sub-Postmasters and clerks, expense of stationery, rent, fuel, lights, etc., etc.	$645,245
Expenses of the London City P. O.	402,430
London letter receivers	91,435
Total expenses for work, etc in the Post Offices	1,139,110
Grand Total : entire postal expenses	7,003,399

The expenses of the United States Post Office in 1853, amounted to $7,982,756, consisting of the following items :—

Mail transportation	$4,906,308
General Miscellaneous expenses	703,700
Total, general mail expenses	$5,610,998
Compensation to Postmasters	1,821,473
Salaries of Clerks	509,820
Stationery	41,454
Total for work, etc., in Post Offices	2,372,748
Grand total : entire postal expenses	$7,982,756

We have here $2,372,748 for expenses in our Post Offices to go against $1,139,110 in the Post Offices of Great Britain, but as we have in round numbers 24,000 Postmasters, while the whole number of Postmasters and sub-Postmasters in Great Britain amount to but little over 8000, the circumstances are not equal. We will then deduct from the expenses of our Post Offices two-thirds of the amount of all the salaries of our Postmasters, ($1,214,316) and that will leave $1,158,432, to go against the sum of $1,139,110, for the same kind of services in Great Britain. Now we have taken away 16,000 of the laborers in our postal service, and if we once suppose that the remaining Postmasters and clerks could attend to the work, what do we get as the result of their labors. It is certainly not to be supposed that they could do the work with our complicated and heterogeneous system; but if they could perform it, how does it compare with the results of the labor in the British Post Offices. In 1852, there were 95,790,524 letters mailed in the United States, and in Great Britain during the same year, 379,501,499. According to the above expenses every million letters in the United States cost for despatch and reception—independent of transportation—the sum of $12,067, while the same number in Great Britain cost $2,998, being less than one-fourth the amount. Were the British method of doing business as complicated, laborious and expensive as ours, their 379 million letters would have cost in the stamping, mailing and handling, $4,585,460, instead of $1,139,110, and this besides transportation and general post expenses. On the other hand, were our system as simple, uniform, and in consequence, as cheap as theirs, our 96 million letters would have cost $287,908 instead of $1,158,432, or we could have despatched 400 million letters at the same cost and trouble that it now takes for less than one-fourth of that number.

Nothing is said of papers, books and pamphlets, but as they are similar in both countries it would not effect the general result. If we added to the expense of the Post Offices of Great Britain as given above, the salaries of all the letter carriers in the kingdom, ($1,405,935) it would only raise the amount to $2,545,045, and this would only be about $6,000 for every million letters; not far from half the sum that our letters cost. These gigantic results in the British Post Office are most certainly attained in simplifying labor by making postage uniform. It may appear at first like a small matter that we have three rates of letter postage, one for drop letters, one for general post letters that go less than 3,000 miles, and another for distances beyond 3,000 miles. It may appear to be of little consequence that we have two methods of paying for our letters, either in stamps or in money, and that we have three methods of computing the rates of postage by weight. But these are not small matters, or unimportant. In the mailing and delivery of a hundred million letters, and the management of 24,000 post offices, it is a question of millions of dollars. So long as we go on the principle that our Post Office must sustain itself, it becomes a question of high or low rates of postage. Were every rate and process in our postal system reduced at once to the greater uniformity and simplicity, the single rate of letter postage might to-day be put at one cent and a half instead of three and ten cents, and have our post office revenue and expenses as nearly balanced as they are at present.

By the English system, every letter is charged at the same rate, drop letters and letters for any distance within the kingdom. All go by weight, one penny for those under half an ounce, and double that sum up to an ounce, and beyond that half-ounces are not reckoned; but all over one ounce and less than two ounces are charged four postages, and so on for heavier letters. And then at all offices except in London, letters must be prepaid by stamps only or not at all, money not being received in payment for letters when they are mailed. And

Postmasters and clerks are not obliged to weigh or rate letters for the public. Every one must weigh or rate his own letters, and any and all postages, not prepaid, are to be charged double. Now see how different, how complicated, laborious and inconvenient is our system. In the first place there are three rates of postage, one cent for drop letters; three cents for letters that go less than 3,000 miles and ten cents for those that go over 3,000 miles. Then we have three methods of rating letters by weight. Drop letters are all the same postage without regard to weight; letters that circulate through the mails, but not going out of the country, are charged a single postage for each and every half ounce or fraction of a half ounce; and letters to foreign countries are rated like the letters in England, a postage for each half ounce up to an ounce, and then two postages for each half ounce or fraction of an ounce. Then, as if these three rates of postage and three different methods of rating did not make it complicated enough, there are two ways of receiving postage, either by money or by stamps, thereby obliging the Postmaster to keep a double set of accounts, one for cash-paid letters, and one for those paid by stamps. The new law does not improve much on this, for instead of obliging the public to put stamps on their letters, the law is so worded that the Postmasters and clerks may be compelled to paste on the postage labels, after being at the trouble of selling them. In all transient books and pamphlets there is the same lack of simplicity and uniformity, the postage being one cent for every ounce in weight, thereby making it a matter of necessity to weigh every book or pamphlet. Why have separate rates for weights less than a quarter of a pound, so that a book or pamphlet weighing four ounces should be four cents, over four and not over eight ounces, eight cents and so on, four cents for each quarter of a pound, or eight cents for each half pound beyond the first? The English postal system recognizes no separate rate except by half pounds, and that is all-sufficient for everything that weighs half a pound or over. Then the weight, or near enough to establish the rate of postage, can in most cases be judged correctly without weighing.

Have all letter postage reckoned by weight, two cents for a single rate of half an ounce, or under, and reckon no half ounces beyond the first ounce, and simplify the rates of postage for books and pamphlets, by reckoning no odd weights of less than four ounces, up to the first half pound, and nothing less than half pounds beyond that. Do away entirely with one, and and three, and ten cents stamps, and have new ones of two, four, eight, and twenty-four cents, and oblige the public to weigh, and rate, and put stamps on their own letters, and allow any letters to go that are not prepaid—unless the postage is higher than sixteen cents, but take nothing that is not prepaid, if there is a higher sum due on it than that,—and receive no money in prepayment for letters; and charge each and every postage double that is not prepaid. Have nothing go by mail at less than two cents, charging that sum for every letter, handbill, newspaper, circular, or other package, and allow a single newspaper of any weight, or two ounces of any printed matter to go for that sum, provided, it is in a wrapper, open at the ends. Let this be done, and stop sending way-bills with parcels of letters, and more than one-half of the work in our Post Offices is at once done away with. Besides the abridging of labor and the attendant lessening of expenses, it would make the entire postal system far more simple, easy, cheap, and convenient to the public. Give us in addition letter carriers and receiving houses, and have from four to ten deliveries a day, as in the English cities, and we shall double our correspondence in less than two years, and our postal receipts will inevitably increase far beyond the increase of expenses. When penny postage was introduced in England, the annual correspondence was more than doubled the first year, rising from 82,470,596 letters, in 1839, to 168,768,344, in 1840.

A striking result of the benefits of uniformity in postage, as a measure of economy, is shown in the comparative cost of attending to the mailing and transporting letters in Great Britain and the United States, and in Great Britain before and after the rates were uniform. In Great Britain, in 1839, the year before the introduction of the uniform postage, there were 82,470,596 letters, and the gross expenses of the Post Office amounted to $3,784,997. This shows an expense of $46 for each thousand letters. In 1853, the number of letters sent by mail in Great Britain, was 410,817,489, and the gross expenses of the Post Office $7,003,-399. This amounts to $17 for every 1000 letters, so that in porportion to the business done, all the expenses of attending to the mail in Great Britain, is only a little over one-third what it was before there was uniform postage. And how is it in the United States? In 1852, the number of letters mailed was 95,790,524, and the entire postal expenses $7,108,459, being an expense of $74 for each 1,000 letters, a strong contrast to the $17 for a 1,000 letters in Great Britain. There are local circumstances that no doubt make certain branches of postal service in Great Britain, cheaper than in this country, particularly the item of transportation, but we have seen that the internal affairs of the British Post Offices are conducted at one-fourth the expense that the same duties are with us, in proportion to the amount of business carried on. There is a certain order of minds that sees a terrible injustice in having the resident of Nassau street, pay the same sum for a letter to go to Union Square or Jersey City, that his neighbor in William street, pays to get a letter to his correspondent in California, Oregon, or New Mexico. These minds must be treated with becoming tenderness. Tell one of these innocent logicians, show him by the clearest evidence in the world, that any graduated scale of postages, few or many, where the pay is according to distance, cannot be carried on with a better financial result and more profitably than the very lowest of his rates, with the advantages of uniformity and simplicity, and he will then tell you that he thinks it very unjust. Can any one seriously think that there is a financial advantage in having letters between the Atlantic and Pacific States pay ten cents, with letters other distances paying three, and drop letters one, while in consequence of these several rates, we are burdened with a varied, complicated, laborious and expensive system? Is there any reason in believing that there is any other result than a great loss? Look at the following figures showing the gross amount of postages collected in the States and Territories mentioned, in the year 1854.

California,	$255,188
Oregon Territory,	0,495
Washington Territory,	1,523
Utah Territory,	1,857
New Mexico,	906
Total,	$270,974

If we deduct one-third of this for the postage on local matter, we shall have $180,646 for the postage on letters and papers going over 3,000 miles, and which is charged double the rate of mail matter sent less than 3,000 miles. One-half of this, $90,323, may be considered as the profit or surplus derived from the high rate of postage. If we add to this, an equal sum for the postages collected in the Atlantic States on mail matter going to the Pacific, we shall have $180,646 as the gain accruing to our Post Office Department from the double rate of postage for long distances. And what does it cost to collect this sum of $180,000? Why, it costs at the least calculation, over a million and a half of dollars, or more than eight times the sum gained, and we respectfully submit that the facts, figures, and arguments advanced conclusively prove it. Those of our citizens who reside on the Pacific coast, the laborious miners, the patient agriculturists, the hardy pioneers, and the enterprising merchants, are, I believe, at this period experiencing hard times. California, we are told, adds sixty millions annually in hard coin to our circulation, being an actual creation of this amount of wealth, all of which goes to benefit the nation at large. And yet, this brightest jewel in our starry galaxy, this golden setting to our national casket, must be taxed an extra sum for their postage. They and their neighbors on the Pacific and their far-off friends in the old States are taxed the sum of $180,000 annually in an extra rate on their letters, and it costs between one and two million dollars to collect the impost!!!

But we are spared a further consideration of the manifest injustice of having a portion of our citizens charged heavier than others purely in consequence of their living or transacting business in a certain locality. It is sufficient for our purpose that it creates a great burden on the whole country and as a purely financial question, costs nearly ten times as much as it comes to. There is a certain popular fallacy in this country respecting the operation of the penny postage in England, and that is that it costs a penny a letter to transport and attend to their letters. It really *costs* but about one half-penny, or one cent a letter, the balance being clear profit, and going into the Treasury, to the amount of several millions a year. The gross receipts of the British Post Office for 1853, amounted to $12,872,039, and the expenses to $7,003,399, at the usual increase, the gross revenue for 1854 would amount to $13,159,723 and the expenses to $6,718,558. This leaves a clear profit of $6,441,165. This amount of profit will be reduced somewhat in consequence of a part of this being profit on foreign trans-marine and colonial postages. This profit amounts to the sum of $1,648,001, and after making a suitable deduction for expenses of these

letters, and the portion due for transportation within the country, there will be an actual expense of 11½ mills (our currency) for each single letter. It is well known that newspapers pay no postage in England, the penny stamp on the paper—by virtue of which they pass free through the mails—going to the national treasurer as stamp duty. The equitable amount of postage for newspapers in Great Britain, cannot be reckoned at less than $750,000 annually.

Because one penny—two cents—is the letter rate of postage in England, and because that country is smaller and more densely populated than our own, our Post Office logicians jump at once to the conclusion that we cannot have as low a rate as that. These conclusions are on the false basis that letter postage *costs* a penny in England, while, as we have seen, it only costs a mere fraction over a half-penny. As a supposable case, we will imagine that letter postage in England was reduced in 1840, to twopence instead of one. Let us suppose further, that this rate of two-pence only just defrayed the cost of the mail service after a fair trial. Now with this example of two-pence postage in England—four cents, our currency—defraying the expenses of mail service there, had some one proposed a rate of eight cents in this country—just double the rate in England—it would not probably have been considered very unreasonable that such a rate of postage would be a paying one. Now, as a logical sequence, it is just as false reasoning to contend that we cannot have a two-cent rate here that will pay, provided one cent pays in England, just as readily as eight cents would pay here, provided it cost four cents there.

As I have stated that I meant to take a financial view of the Post Office Department and the postal service, I should be doing injustice to the subject and to my own feelings were I not to allude to the largest waste, the heaviest expenditure, and the grossest injustice in our entire postal administration. I allude to what is usually called "the franking privilege." If a farmer whose land, location, and materials were entirely unfitted for the grape culture, should expend three hundred dollars a-year for green houses, fuel, and labor, and get as a reward a few pounds of grapes, while at the same time he could purchase a larger quantity and a better article in the market, for less than ten dollars, we should say, that as far as the pecuniary results were concerned, it was decidedly a losing business. I do not wish to attempt to make mountains out of mole hills, but when I say that the United States are taxed some two millions dollars a-year to support the franking privilege, and that it comes altogether out of our postage money and correspondence, and that the actual benefits to every person that receives any benefit at all, and reckoned on the most liberal scale, and by every possible standard of value, cannot amount to $200,000, I am asserting what is a clear and indubitable fact. A postal system is established and kept up by Government for the convenience and benefit of the nation. By a certain enactment Congress designates certain officers, and among them all the individuals comprising their own body, and says that these officers shall send through the mails any and all printed or written matter that they choose free of postage. Under this regulation articles of the most miscellaneous and heterogeneous description are sent in the semblance of a book, and these, with printed and written documents, form a very large proportion of our mails; one-quarter or one-third. Contracts are made with certain persons and companies to transport the mail over 250,000 miles of post roads: clerks are hired, and the expense attending the mail matter sent, is, of course, proportionate to the quantity. For this large portion of the mail matter that goes free, the expense of handling and transporting must come out of somebody, and it falls on those who use the mails. Were this free matter to form nine-tenths of our mails, instead of one-fourth or one-third, and the postage on the one-tenth sent by the citizens would not defray the expenses of it all, then we should probably have a law raising our rates of postage: not to defray the expense of our letters and papers, but the expenses of the matter sent by Government, while there would be just as much justice in taxing those persons who write letters and read newspapers, and none others, to get money to carry on a war with the Indians, or to maintain fleets and armies.

We know there is such a thing as the franking privilege, and we know it is a source of great dissatisfaction to the bulk of our population, and that it is said to be subject to great abuse. All these things are proverbial, and yet I am positive that not one-half of this enormous and gigantic fraud is seen or appreciated by our people. It is a fraud, for while this omniverous system is swallowing up millions of our postal revenue, we are denied mail facilities of the most pressing necessity, and all under the plea that the Post Office Department does not support itself. Let us put this subject, like others, to the test of figures and statistical calculations, and see how it will bear examination. Fortunately we are not obliged to grope in the dark on the subject, or rest on conjecture or opinion. An official statement made by the city postmaster at Washington to the chairman of the Committee of Post Offices and post roads in the House of Representatives, shows the following as the

Quantity of Mail matter sent from Washington during the month of January, 1854, upon which no postage is collected, and showing the amount of revenue that would accrue if the same was chargable with postage, and prepaid.

Number of letters franked by members of Congress,	77,727
Weight of the same in pounds,	3,446
Amount of postage on the same, if prepaid,	$4,663 62
Weight of Public Documents franked by members of Congress,	lbs. 693,508
Amount of postage on the same, if prepaid,	$110,961 20
Weight of letters franked by Executive offices,	lbs. 7,065
Amount of postage on the same, if prepaid,	$6,782 40
Weight of newspapers,	lbs. 111,002
Total amount of postages on the above [the newspapers excepted] for one month, provided it is prepaid,	$122,407 22
Total amount for twelve months,	$1,468,886 64
Total amount for 12 months, if not prepaid,	$2,931,049 20

Without taking any account of the newspapers, here we find nearly a million and a half of dollars for free matter that leaves Washington in one year, besides all that arrives at Washington, and all that is sent free in all other portions of the country. A fair estimate would probably give three millions as the amount of postage on the franked matter annually sent through our mails. The Post Office Committee of the House of Representatives put it at $2,500,000, and we are willing to admit that as a fair estimate. The late Postmaster General calculated the postage on the free matter of Washington—going out and coming in—during two years, ending July 1, 1851, at $4,240,820, being at the rate of $2,120,410 annually. It is thus very evident that two millions and a half for free, congressional, and Government mail matter is below, rather than above, a correct estimate. Now, in the name of all that is just, why is that enormous tax—as purely a Government matter as supporting the army and navy—why is this sum raised by taxing our correspondence?

We will now make out a balance sheet, and see how much Government is indebted to the Post Office Department—to the citizens of the country who use the mails—for postal service, during a period of—say six years. The following table shows the gross Revenue and Expenses of the Post Office Department, from 1849 to 1854 inclusive, the Revenue being that from postages only, the annual appropriations from the Treasury for Government and Congressional matter being in a separate column:—

Date.	Revenue from Postage.	Post Office Expenses.	Appropriations that were made.	Appropriations that sho'ld have been made.
1849....	$4,705,176	$4,479,049	$200,000	$2,500,000
1850....	5,352,971	5,212,953	200,000	2,500,000
1851....	6,351,978	6,024,567	375,889	2,500,000
1852....	5,082,537	7,108,459	1,741,445	2,500,000
1853....	5,240,725	7,982,757	700,000	2,500,000
1854....	6,255,586	8,577,424	700,000	2,500,000
Total,...	$32,988,973	$39,385,209	$3,917,334	$15,000,000

If we add to the Post Office Revenue for the last six years, the sum of $15,000,000 for Government postages, instead of $3,917,334, the amount that was appropriated, we shall have a gross Revenue of $47,988,973, to go against expenses to the amount of $39,385,209, during the same period. This will leave a balance of $8,603,764, and this sum the Post Office Department has actually earned during the last six years, over and above all expenses. And yet, in the face of all this, we have a law passed raising letter postage on all letters that go 3,000 miles or over, from 6 to 10 cents, on the plea that the Department does not support itself!

In addition to this, there is no part of the country, no large city, small town, or back settlement, that is not suffering for mail facilities which are denied on the plea that there is no money. The very fact that an appropriation is made "on account of Government postages," is a tacit acknowledgment of the debt that Government owes to the people of the country for mail service. By what rule of financial calculation, or mercantile fairness, a debt of $2,500,000 may be said to be discharged by a payment of seven or eight hundred thousand dollars, is a problem that would perhaps puzzle the ablest head in Wall street.

I feel that it would be an insult to your understanding to elaborate and extend my demonstrations further on this head. If I have not made out my case, if it is not as clear as a demonstration in Euclid, or a problem in the Rule of Three, that a reduction of thirty-three per cent. could at once be made on our rates of postage, and then have our Post Office support itself completely, and have an overplus for our contingencies, provided Government paid for all the franked matter, and we had uniformity for a basis, and letter carriers and receiving

houses in our cities—I repeat, if my case is not fairly made out, then I am willing to be set down as one "void of understanding," and without the capacity to appreciate the simplest question of national finance.

I have not the time, nor would you have the patience, to take up the subject of Post Office Money Orders, and some other important branches of the postal service.

There is one outlay, one branch of postal expenses, that of mail transportation by railway, in which, according to contracts formerly made, we have had an expenditure that, if continued, would not only absorb all our postal revenue, but would bankrupt the national Treasury. The sum paid for Railroad transportation in 1848, was $584,192, and in 1854, $1,758,610, and with the same rate of progressive increase for fifteen years—to 1870—our annual mail transportation on Railroads alone would be no less than $32,524,014, and, with other expenditures, would make an aggregate of postal expenses to the amount of $74,881,198. You need not be told that our postal receipts, cannot by any possibility amount to such a sum within that time.

I am not here to bestow praise or blame on any man or body of men, but to look at the condition of the Post Office as we find it. It is however but fair; it is due to the country, and to the administration of our postal affairs, that I mention one fact in connection with this branch of the postal service. There has, I believe, been a disposition on the part of some portion of the public, to censure the Post Office Department for not complying with the demands of some railroad companies, in making contracts for mail service. Let it be established as a principle that our mails must go on all of our railroads, no matter what prices the companies may charge, and any one can see what would be the inevitable result on the finances of the Department. It is within my knowledge that the Postmaster General has lately concluded contracts with some railroad companies, on long and important routes, and at prices far lower than heretofore paid, and while it is a remuneration for the service, it is a price that the Department can afford to pay. This has only been accomplished by taking a firm stand, and going on the principle which must predominate in every judicious administration of financial affairs, that of paying no higher than the receipts will justify. I shall be able to show in another place, that we now pay nearly one million dollars annually higher for railroad service than we should pay, and nearly twice as high as is paid for similar service on the railroads in England. The railroads in that country originally cost nearly five times as much as the railroads of this country.

The subject of Post Office Improvements has occupied much of my attention for seven or eight years, and not until I resided several years in Great Britain had my attention been called to the vast superiority of the system in that country. Last year I made a journey to Europe for no other purpose than to obtain facts and reports on the postal systems of the principal European nations, and I succeeded in collecting much and most satisfactory information, being aided and assisted with the greatest courtesy by all the postal authorities whom I met, as well as by the United States Ministers at the different Courts.

BENEDICT ARNOLD.

To us, nothing appears more certain than that individuals, like water, are sure to find their level. And we never saw this example more strikingly illustrated, than in the actions of the unfortunate man whose lineaments are depicted above. The career of Benedict Arnold fills one of the most mournfully instructive pages of history; and although he evinced great bravery and wonderful powers of endurance during the time he was an officer in the Continental army, the close observer will readily perceive that his whole action was from animal instincts, and the wish for personal agrandisement.

From boyhood he exhibited the leading traits of his character. Reckless, pitiless, and daring, he was the terror of his playmates, and disliked by all. It appears to have been his greatest delight to inflict pain, and his achme of bliss was reached through the intense sufferings of his fellow-beings. We are told "he would not only rob nests of their young, but torture his victims to draw forth the agonizing cries of the parent bird. He would scatter broken glass in the road, where the school children passed barefoot, and tempt them round the druggist's shop in which he was employed, with broken phials, only to scourge them away with a horsewhip. He was bold as he was cruel, and delighted in those perilous feats, which none of his companions dare imitate. It was a favorite amusement with him at a grist-mill, to which he sometimes carried grain, to seize the large water-wheel by the arms, and go round and round with it in its huge revolutions, now buried under the foaming water, and now hanging above in fierce delight, while his companions looked on in silent terror." In the above few anecdotes of his early life, the prominent features of his later career are amply demonstrated. For, although he had some talents of the highest cast, which, with a proper cultivation and the opportunities that were presented him, might have elevated his name high among that list of worthies, who will for ever claim the love and reverence of the world; still his brute nature so largely predominated, that, after giving way to it so long, it was impossible to control it in manhood. And when the time came that "self" could not be gratified in any rational direction, he was ready to pander to it, even by the most vile, unmanly and inhuman measures. And, to our mind, it was this principle that was acting in him when he concocted the scheme—fortunately abortive—that was to consign his *native* land to the perpetual bondage of monarchy, and which has placed his name in the lowest depths of infamy, side by side with his who was the betrayer of the Saviour of mankind.

Benedict Arnold was born in Norwich, Connecticut, on the third day of January, 1740. His father—first a cooper, then a sea captain—was, after, a merchant in that town, where, for a while, he had a somewhat prosperous career, and, during the time, was enabled to give his son the best education which the place afforded. The father eventually met with reverses, and, with a tainted reputation, finally filled a drunkard's grave. His mother was highly esteemed for her piety and virtue; but the whole of her good example was thrown away on her son. After leaving school, Benedict, then a lad, was apprenticed to a druggist, but, after serving a time, he ran away, and enlisted in the army, from which he was shortly after released

through the interposition of his mother and her friends. Ere long, however, he ran away again, and reenlisted; but this time, finding the restraint of a garrison life was too much for his restless spirit, he deserted, and once more returned home. Resuming his apprenticeship to the drug business, after serving his time, he went to New Haven, and commenced the trade on his own account. He succeeded so well, that he acquired considerable property, when he disposed of his shop, and purchased vessels, which he commanded in person, commenced the cattle and provision freighting business to the West Indies, and led a life more suited to his roving and adventurous disposition. After a season, he was unfortunate in his speculations, and once more returned to his occupation of a druggist, at which he was employed at the breaking out of the war of the Revolution. He was at that time the captain of a volunteer militia company, and on hearing of the battle of Lexington, he enrolled a portion of his own command, and other volunteers to the number of sixty, and, hastening to Cambridge, tendered his services to the Massachusetts Committee of Safety, by whom he was well received and immediately authorized to raise a company of four hundred men for the reduction of Ticonderoga, and, in a short time, the supplies being ready—promoted to the rank of Colonel—he eagerly started on the expedition, traveling at the rate of fifty miles a day. The impetuosity of his unbridled disposition was often exhibited in this, his first position of responsibility, and was at one time so serious, that everything was thrown in confusion, and the whole command was on the brink of mutiny; finally, when he found it was impossible to gain the chief command over honest Ethan Allen, his restlessness started him off to St. Johns, at the head of a about fifty men that had been enlisted along the road, by his orders. With only one schooner he sailed down the lake, and having surprised the garrison, and taken thirteen men prisoners, he seized a British sloop, destroyed five bateaux and then returned to Ticonderoga, in the vicinity of which he organized a small fleet, over which he took command.

Here his arrogance and turbulence was, as usual, getting him in hot water; and after repeated complaints (Headley thinks many of them false and unjust) and investigations, rather than submit to the degradation of having a junior officer placed over him, he resigned his command and returned to Cambridge.

On his return, in the fall of 1775, he was ordered by Washington to lead a project for the invasion of Canada—it having been resolved to penetrate the wilderness of the then "District of Maine"—to surprise and take the city of Quebec, and reduce the Provinces. The whole force selected for this hazardous enterprise was eleven hundred men, Arnold being commander-in-chief, with the rank of colonel. The accomplishment of this perilous and extremely difficult march was creditable in the highest degree to the military genius and skill of its leader, and furnishes evidence that, could the good characteristics of his disposition have predominated, the name of Benedict Arnold, now scoffed and spit at by the honest and virtuous of all countries, might have been enrolled on the highest scroll of fame. Deep must have been his remorse when, in after years, conscience, no doubt, ever goaded him with the consequences of his degradation and infamy. In reference to this march through the wilderness, Headley remarks, "In a few days, the army arrived, having accomplished one of the most remarkable marches on record. The world-renowned passage of San Bernard, by Bonaparte, with twenty thousand men, will not compare with it. He had an open path, a short distance, and provisions in abundance. The great difficulty was in the transportation of artillery. There was no uncertainty about the way; nothing, indeed, to daunt the soldier but hard work. True, it was a large army, but he could subdivide it in as many portions as he pleased, leaving each to pass by itself. The boldness of the undertaking is its great attractive feature. But San Bernard is only a few miles over, and the soldiers, leaving the rich valley of Martigny in the morning, could sleep in the hospice on the top at night; while here was an army of more than a thousand men, marching for over forty days, through fearful solitudes, wading streams, climbing mountains, scaling precipices, drenched with rains, and wasted with toil, enduring hunger, cold and famine, and all to place a forest of two hundred miles in extent between them and safety. That army of a thousand men, in the heart of that wilderness, toiling slowly yet resolutely on, is one of the sublimest sights our history furnishes. Men in a retreat may do such things—Bonaparte fleeing from Moscow, Julian retreating across the desert, Suwarrow over the Alps, are wonderful events in human history, but the wonder would have been ten-fold greater had they encountered these perils and hardships in marching *after* an enemy instead of fleeing before one. Men will dare any peril in their path, if less than the one that threatens from behind, but it is quite another thing to enter voluntarily upon it; and that march to Quebec is a standing monument of the hardihood and boldness of American soldiers, and of the amazing energy and firmness of Arnold's character."

The battle of Valcour Island, on Lake Champlain, was a queer episode in the life of a military chieftain, and further evidence of the brute courage of Arnold; but like most of his previous efforts, was without benefit to the cause. The rank of major-general, which he had coveted for a long time, was eventually conferred on him, principally for great bravery displayed at Ridgefield, Connecticut, where he acted as a volunteer under Generals Silliman and Wooster.

At the battle of Stillwater, he displayed the reckless daring of his character in the highest degree; although he commenced operations in his usual way, viz.: by a quarrel with his superior officer; but it is now generally admitted that his altercation with General Gates was anything but creditable to the latter. No doubt, from what Arnold considered the injustice of Congress, and other causes, that prevented the accomplishment of his ambition, he had become perfectly reckless, and at the last-mentioned battle had determined to sacrifice his life on the sacred altar of his country. His rashness on this occasion knew no bounds; he rushed in the most dangerous positions, regardless of consequences. Once, wishing to go from one extremity of the line to the other, instead of passing behind his troops, he wheeled in front and galloped the whole distance through the cross-fire of the combatants—in fact, one of his biographers says, "he fought like the devil incarnate," and had the grape-shot, by which he was severely wounded in the leg, selected his head, his sun would have gone down in glory, and his memory been embalmed in the hearts of grateful millions.

This was his last active service in the cause of American freedom. After the evacuation of Philadelphia, he was appointed to the command of that city, where he was only distinguished for his debauchery and dishonest extravagance. Whilst here, he became enamored with and married the daughter of one of the citizens, Mr. Edward Shippen. After some time, becoming pressed down with pecuniary and other difficulties—having, of course, the usual amount of quarrels on hand—he devised the act that branded his name with infamy. Owing to the friendship of Washington, he succeeded in obtaining command of West Point, but *not* in delivering that important station over to General Clinton and the British Government. "He at first corresponded with Clinton, at New York, under a feigned name, but the latter suspecting, from the information given, that it was no common man to whom he was indebted, began to cast about for the author, and soon came to the conclusion that it must be Arnold. The negotiations then became more direct, and the contract was soon completed. Arnold was to surrender West Point for a certain rank in the British army, and a certain amount in money. The plan which had been ripening for eighteen months now drew to a close. Under the name of Anderson, Arnold had carried on a long correspondence, until, finally, Andre was appointed to have a personal interview with him. After several unsuccessful attempts, they at length met and concluded all the arrangements. A large British force was to ascend the river, on a certain day, and land at the most important points, which Arnold was to leave unprotected. The hand of a kind Providence frustrated the design, the successful execution of which would have been most disastrous to American liberty. The inability of Andre to return on board the 'Vulture' on the same night he left; the steady refusal of the man who brought him ashore to take him back the next day; his sudden determination to change his route after the guide left him, and the loss of his presence of mind, and supreme folly, when arrested on the highway by three Americans, are all a connecting chain, with the links hung so precariously together that he must be a mad man who cannot trace an unseen power controling the whole transaction. I do not design to go into the particulars of this affair; they are known to all. By the folly of Colonel Jamison, to whom Andre and the papers he had on his person were committed, Arnold escaped. This officer sent on the prisoner to West Point, where he would safely have arrived, but for the interference of Major Tallmadge, who, being told on his return from White Plains in the evening of the events that had occurred, urged his superior officer with such earnestness to bring Andre back, that he at length reluctantly consented, and the party was overtaken before it reached

the river. He, however, stubbornly insisted on sending a letter to Arnold, and did so; Washington, in the mean time, was on his return route from Hartford to headquarters, by way of West Point. The messenger sent to him with the papers missed him, by taking the lower road, while he took the upper one. To complete the misfortune, Washington, who had arrived at Fishkill, in the afternoon, with the intention to proceed to West Point that night, where Arnold still remained, ignorant of Andre's arrest and his own danger, was met, just out of town, by the French Minister, M. de la Luzerne, on his way to Newport to visit Count Rochambeau, and persuaded by him to turn back. The next morning, early, he started for West Point, having sent word on to Arnold that he would breakfast with him. But when he reached the river, opposite the fort, instead of crossing immediately, he rode down to visit some of the redoubts. He sent over two aids to tell Arnold not to wait, and so they sat down to breakfast. While at table, a messenger came in and handed a letter to him. He immediately broke the seal, and read with consternation the letter of Colonel Jameson With wonderful self-possession, and without betraying any emotion, he rose hastily from the table, saying that urgent business called him away, and requesting them to tell Washington so on his arrival. Ordering his horse to be saddled, he went up to his wife's room, and sent for her. In a brief and hurried manner he confessed the whole affair, saying, that unless he reached the English lines without detection, he would lose his life. He told her, perhaps they would meet no more, but had hardly said farewell, before she sank in a swoon at his feet. Leaving her pale and lifeless on the couch, a crushed and broken thing, he hastened down stairs and sprang to the saddle. Galloping straight for the river, he entered a boat, and ordered the oarsman to row, as for life, for the English ship 'Vulture.' He reached it in safety Washington, in the meantime, arrived at Arnold's house, and after taking a hearty breakfast, went to visit the garrison, where he expected to meet Arnold Disappointed in not finding him there, he remained for awhile, and then turned back to the house. On his way he saw Hamilton walking rapidly towards him. The latter, taking Washington aside, showed him the papers that had been in pursuit of him. Calm and unmoved, he instantly hurried off Hamilton to Verplanck's Point, to intercept, if possible, the traitor. It was too late, however; he had escaped, leaving his beautiful wife in a paroxysm of grief, and on the verge of madness." As the reward for his treason, he obtained the rank of colonel, with the brevet of brigadier-general in the English army, and twenty thousand dollars. There he was distinguished for the same reckless daring and cruelty, that has been designated "bravery," which he was quite as willing to use against, as for his native land. Among the prisoners he took on a certain occasion, was a captain, who, on being asked by him what the Americans would do if they captured him, replied, "They will cut off the leg which was wounded in fighting for liberty, and bury it with the honors of war, and hang the rest of your body on a gibbet."

After this, he was sent to New London, and burned it to the ground; and there, around the very haunts of his childhood, committed enormities worthy of a traitor.

In perusing the various histories, we are at a loss to account for the great friendship that appears to have always existed between Washington and Arnold, until after the treason of the latter. And we have to agree with Sparks, who intimates that the "injustice of Congress grew out of the stern integrity and virtue of the members, who, conscious of Arnold's moral defects, did not wish to place power in such dangerous hands." We, in common with all *true* and loyal Americans, have all the national fraternal love and reverence for the father of our country. But the evidence is conclusive that he *was* deceived in Arnold, and why not *before* as well as *after* the latter's treachery. We reiterate, that Arnold, in our opinion, was not a brave man: the courage he displayed was of the kind exhibited by pugilists, when they stand face to face, and lower themselves to the level of the brute creation, and quite a different feature, from the firm, determined, cool, calculating, self-sacrificing bravery that was at all times exhibited by the Commander-in-Chief, and many others of the generals of our glorious Revolution.

After the close of the war, Arnold went to England, where he was despised and detested by the very people to whom he had sold himself; but this, of course, is the just reward of all traitors. Finding himself universally abhorred, he removed to St. Johns, New Brunswick, and established himself as a merchant. Although he rapidly acquired a fortune, the citizens knew no respect for him, and at one time burned an effigy of him, which they named "The Traitor." Not long after this he returned to England, where he continued to reside until his death, which event occurred in London, June 14th, 1801, in the sixty-second year of his age.

THE TOMB OF THE CZAR NICHOLAS,

AND THE COTTAGE OF PETER THE GREAT.

[A correspondent of the "Boston Transcript," writing from St. Petersburgh, gives the following account of the tomb of the late Czar, Nicholas, and also of the cottage palace of Peter the Great, with its "three rooms," still carefully kept in preservation.]

St. Petersburgh, 13th April, 1855.

The most interesting church in St. Petersburgh is that dedicated to St. Peter and St. Paul, otherwise called the "Fortress Church," as it stands within the citadel of the city. Its slender spire, precisely resembling that of the Admiralty, rises far above all others to the height of 340 feet, and its gilded surface shines dazzlingly in the sun. It is said that 12,000 ducats have already been expended in the gilding of this spire. But within the Fortress Church rest the remains of all the Czars since Peter the Great. No European monarchs rest so unostentatiously, and no others are buried within the walls of a fortress. To each Emperor there is erected merely a sarcophagus, with frequently his initial letters engraved upon it. Each of these sarcophagi is covered with a pall of cloth of gold, embroidered with the double-headed eagle. Upon the Grand-Duke Constantine's tomb lie the keys of some Polish fortresses, while Alexander's bears a small military medal with his portrait. Each tomb is surrounded by a neat iron railing, and the part of the nave devoted to the tombs is again separated from the body of the church.

As I visited the church during Lent, the cloth of gold was concealed in every case by a faded black covering. Beginning with Peter the Great, I passed by all the Czars in chronological order. Here lay the great Catharine, and sleeping quietly by her side, her husband, Peter III., to whom she, in her lifetime, refused this place. Around one of the sarcophagi I saw a dense crowd, and, approaching it, found it that of Nicholas. The cloth was new, and no dust had settled on the ermine border. His initial letter was embroidered in amaranth, and a candle burns night and day upon the tomb. The little relic that was placed upon his breast while he lay in state in the palace, lies upon the middle of the sarcophagus. It is surrounded by a wreath of immortals. Every one who approached the spot seemed touched with real sorrow, and all spoke in whispers around the grave of the great man. As I stood there watching the crowd, the gates were suddenly thrown open, and an old general, in full uniform, entered and approached the tomb. Taking off his helmet, he held it before his face, and kneeling, seemed for a few moments to be engaged in earnest prayer. The helmet shook in his hands as with emotion. Finally, rising, he kissed the relic that had lain upon his master's breast, and then, crossing the aisle, kissed Alexander's tomb in the same way. He had served under both Emperors, and this his daily tribute to their memories was most touching. He is the commander of the fortress of St. Petersburg, and one of the last acts in the public life of Nicholas was to thank him for his public services. The Czar sent him the Imperial portrait enriched with diamonds.

Upon the walls and around the pillars of the Fortress Church hang trophies taken from the Turks, Persians and French. In this way have the Russians decorated all their churches; and hardly a nation but is represented in St. Petersburg or Moscow. The English, I believe, are the only exception, but who can tell how long they may continue so? Above three hundred Persian suns and Turkish crescents here bow before the cross of the Christians.

From the church we went to the house of Peter the Great, just without the walls of the fortress, and upon the same island. This was the nucleus of the present city, and could Peter rise from his grave to see the work of his successors, his ambition would be more than satisfied. The cottage is divided into three apartments. The inner one was his sleeping room; the one adjoining, his chapel, in which are still preserved the pictures he worshipped. The third room was his reception-room, and it is filled with rich offerings, which are contained in show-cases ranged round the room. It consequently looks more like a jeweler's shop than anything else. On one side of the house, is shown the boat made by Peter's own hands, also the sails prepared by himself. The whole cottage was rapidly going to decay, but Alexander caused it to be covered by a casing of brick, so that it is now no longer exposed to the weather. Amsterdam was evidently Peter's model of a commercial city, and his first care in commencing his capital was to intersect its proposed site by canals. His successors, however, not being so Dutch in their tastes, caused many of these canals to be filled up and gardens to be planted in their stead. The Basilius Island, therefore, has many delightful gardens instead of closely-ranged masses of brick walls.

BOSTONIAN.

Prize for a Cholera Specific.—The Paris Academy of Sciences have kept, since 1780, a standard offer of a prize of one hundred thousand francs, for a prescription which would, "in an immense majority of cases," cure the Cholera. At the sitting of the Academy, in December last, multitudes of communications respecting the disease were received, but the report was, "that not one of them deserved serious attention." This prize will now be given for a positive, certain indication of the causes of the Asiatic cholera, so that, by the removal of them, it should disappear; or for the discovery of a prophylactic (a sure preventative) such as vaccination is for the small-pox. There is, likewise, a prize of 5,000 francs for a demonstration of the existence, in the terrestrial atmosphere, of any matter or animalcule operative in the production or propogation of epidemic disease

MAJOR JOHN ANDRE.

This accomplished and unfortunate young British officer was born in England, in 1751. He entered the army at the age of seventeen, and became one of Sir Henry Clinton's aids, in 1776, with the title of major. When the traitor Arnold proposed to deliver up Westpoint and the American army to the British, Andre was appointed to confer with Arnold, and settle the preliminaries of that damnable treachery. Under the name of Anderson he passed into the American lines, and consummated the treasonable propositions of Arnold. Being disappointed of returning to New York by water, he obtained, through Arnold's influence, a pass from the general officer, and started on his return. He had passed, in perfect security, all the posts and guards on the road, and was proceeding to New York in triumph, when on the 23d of September, one of three American militiamen, who acted as a scouting party, sprang suddenly from his covert and seized his bridle, ordering him to halt. This was so unlooked for, that Andre lost his self-possession, and inquired hastily of the soldier, "Where do you belong?" "Below," was the equivocal reply. "So do I," returned Andre. "I am a British officer, and I trust you will allow me to proceed without detention, as I am on important business." A peculiar smile on the face of the militiaman revealed to him his mistake, and the other two men coming up at that moment, he discovered, too late, the fatal trap he had sprung upon himself. He then sought to bribe the American soldiers, offering his purse and watch, and promising them the most ample reward from his government, if they would allow him to proceed. But they were not of the Arnold stamp, and they sternly rejected all his bribes. On searching him, they found concealed in one of his boots, in Arnold's own handwriting, papers containing exact returns of the state of the forces, stores, ordnance, and defences of Westpoint, with those of all its dependencies, with various other kinds of information necessary to the success of the British, and all addressed to Sir Henry Clinton, commander-in-chief of the British forces in New York.

The three brave men whose patriotism was strong enough to resist such brilliant bribes, and the eloquent appeals of the accomplished Andre, were John Paulding, David Williams, and Isaac Van Wert. They deserve, and will ever receive, the gratitude of their country.

The board of officers composing the court-martial which was to try Andre, and at whose head was General Greene, found him guilty of being a spy, and sentenced him to be hanged. After he found himself fairly a prisoner, he threw off all disguises, and acknowledged everything; indeed, he was convicted on his own confession. Every effort was made to procure a remission of the dreadful verdict, for he was a dear friend of Sir Henry Clinton's, and a favorite with all the officers; but it was thought too flagrant a case to go unpunished, and the commander of the American army, though with the deepest commisseration, ordered the sentence of the court to be carried into immediate execution.

Accordingly, on the 2d of October, 1780, he was led forth to execution. When he saw the fatal gibbet, he manifested some emotion, and exclaimed, "Must I die in this manner?" and in a moment added, "But it will be only a momentary pang;" and, instantly resuming his wonted serenity, he met his fate with a dignity and composure which excited the admiration, and deeply moved the pity, of all who witnessed the sad termination of a life so full of promise. Thus perished, in the flower of his youth, one of the most accomplished officers in the British army and of which the gifted Hamilton thus speaks:—

"There was something singularly interesting in the character and fortunes of Major Andre. To an excellent understanding, well improved by education and travel, he united a peculiar elegance of mind and manners, and the advantage of a most pleasing person. He had a pretty taste for the fine arts, and had made considerable proficiency in painting, poetry and music. His knowledge appeared without ostentation, and embellished by a diffidence that rarely accompanies so many talents and accomplishments. His sentiments were elevated, and inspired esteem; they had a softness that conciliated affection. His elocution was handsome, his address easy, polite, and insinuating. By his merit he had acquired the unlimited confidence of his general, and was making rapid advances in military rank and reputation."

THE PAPERS FOUND IN ANDRE'S BOOTS.

[See Editor's Table.]

[Endorsed.] No. 1—Pass.

Pass from General Arnold, dated September 20, 1780, to Joshua Smith and Mr. John Anderson, to pass the guards at King's Ferry.

Head Quarters, Robinson's House, September 20, 1780.

Permission is given to Joshua Smith, Esquire, a gentleman, Mr. John Anderson, who is with him, and his two servants, to pass and repass the guards near King's Ferry at all times.

[Signed.] B. Arnold, M. Gen'l.

No. 2.

[Endorsed.] Sept. 22, 1780.

Pass to Joshua Smith to pass to White Plains.

Head Quarters, Robinson's House, September 22, 1780.

Joshua Smith, Esq., has permission to pass the Guards to the White Plains, and to return, being on public business, by my direction.

[Signed.] B. Arnold, M. Gen'l.

No. 3.

[Letter endorsed to]

"*Thomas Smith, Esq., Haverstraw.*"

Robinson's House, Sept. 25th, 1780.

Dear Brother—I am here a prisoner, and am therefore unable to attend in person. I would be obliged to you if you would deliver to Captain Carns, of Lee's Dragoons, a British Uniform Coat, which you will find in one of the drawers in the room above stairs. I would be happy to see you. Remember me to your family. I am, affectionately, yours,

[Signed,] Joshua H. Smith.

Thomas Smith, Esq.

No. 4.

[Endorsed.] *Memo.*

Hennirut, [a word not intelligible.]
Elijah Hunter.
Mr. I. Johnson, B. R——r.
Mr. J. Stewart, to the care of Joshua Smith, Esq., to be left at Head Q'rs.
Isaac Adams, 5 „ 5 „ 5.

No. 5.

[Endorsed.]

General Arnold's permission to Joshua Smith.

21 Sep. 1780.
to Dobb's Ferry,
etc. etc.

Head Quarters, Robinson's House, Sept. 21, 1780.

Permission is granted to Joshua Smith, Esq., to go to Dobb's Ferry with three Men and a Boy in a Boat with a Flag to carry some Letters of a Private Nature for Gentlemen in New York and to Return immediately.

[Signed.] B. Arnold, M. Gen'l.

N. B.—He has permission to go at such hours and times as the tide and his business suites.

B. A.

No. 6

[Endorsed.] Sep. 22, 1780.

Pass to Joshua Smith to pass to Dobb's Ferry.

HEAD QUARTERS, ROBINSON'S HOUSE, Sep. 22, 1780.

Joshua Smith, Esq., has permission to pass with a Boat and three hands and a flag to Dobb's Ferry on Public business and to return immediately.

[Signed.] B. ARNOLD, M. Gen'l.

No. 7.

[Endorsed,] *Arnold to John Anderson—Pass.*

22d Sept., 1780.

HEAD QUARTERS, ROBINSON'S HOUSE, Sept. 22, 1780.

Permit Mr. John Anderson to pass the Guards to the White Plains, or below, if He Chuses, He being on Public Business by my Direction.

B. ARNOLD, M. Gen'

No. 8.

[In Arnold's hand-writing.]

Gustavus to John Anderson.

[The following document is one of the highest importance to the British, inasmuch as "*in case of alarm*," it made the British—who would have caused the alarm—fully acquainted with the disposition of all the American forces in that vicinity, and thus enable them to conduct an attack to the best advantage. It is of course in the traitor's own hand-writing :—]

No. 9.

[Endorsed.]—*Artillery Orders, Sep.* 5, 1780

ARTILLERY ORDERS. WEST POINT, Sept. 5th, 1780.

The following disposition of the corps is to take place in case of an alarm.

Capt. Dannills with his Comp'y at Fort Putnam, and to Detach an Officer with 12 men to Wyllys's Reboubt, a non Commissioned Officer, with 3 men to Webb's Redoubt, and the like number to Redoubt No. 4.

Captain Thomas and Company to repair to Fort Arnold.

Captain Simmons and Company to remain at the North and South Redoubts, at the East side of the River, until further orders.

Lieut. Barker, with 20 men of Capt. Jackson's Company will repair to Constitution Island; the remainder of the Company with Lieut. Mason's, will repair to Arnold.

Capt. Lieut. George and Lieut. Blake with 20 Men of Capt. Treadwell's Company, will Repair to Redoubt No. 1 and 2, the remainder of the Company will be sent to Fort Arnold.

Late Jones's Company with Lieut. Fisk to repair to the South Battery.

The Chain Battery Sherburn's Redoubt, and the Brass Field pieces will be manned from Fort Arnold as Occation may require.

The Commissary and Conductor of Military stores will in turn wait upon the Commanding Officer of Artillery for Orders.

The Artificers in the Garrison, (agreeable to former Orders) will repair to Fort Arnold, and there receive further Orders from the Command'g Officer of Artillery, J. Bauman Major Comm't Artillery.

No. 10.

[Endorsed.] *[In the Traitor's own hand.]*

Estimate of the Force at West Point and its dependencies. Sept. 1780.

Estimate of the Forces at W'st Point and its dependencies, Sep. 13th, 1780 :—

A Brigade of Masachusets Militia and two Regiments of Rank and file New Hampshire Inclusion of 106 Batteaux Men at Verplanks and Stoney Points.....	992
On command and Extra Service at Fish Kills, New Windsor, &c., &c., who may be called in occationally.....	852
3 Regiments of Conecticut Militia under the Com'd of Colonel Wells on the lines near N Castle.....	488
A Detachment of N York Levies on the lines.....	115
Militia	2447
Colonel Lamb's Regiment 167	
Colonel Livingston at Ver plank and Stoney Pts. 80	
Continent : 247	
Colonel Sheldon's Dragoons on the lines about one half mounted.....	142
Batteaux Men and Artificers.....	250
Total	3086

No. 11.

[Endorsed.] *[In Arnold's hand.]*

Estimate of Men to Man the Works at Wst Point &c. Sep'r 1780.

Estimate of the Number of Men necessary to Man the Works at West Point and in the Vicinity.

Fort Arnold	620
— Putnam	450
— Wyllys	140
— Webb	140
Redoubt No 1	150
ditto 2	150
ditto 3	120
ditto 4	100
ditto 5	130
ditto 6	110
ditto 7	78
North Redoubt	120
South Redoubt	130
Total	2438

Villepance, Engineer

NB The Artillery Men are not Included in the above Estimate

[The virulence and malice of Arnold's treachery are nowhere more manifest and detestible than in the following document. See how the archfiend exposes the weaknesses of the Forts—the ease with which they could be set on fire—the facilities of approach—the commanding heights and rising grounds, etc. The whole, too, an expose intended expressly for the British, and yet endorsed as if it had been a memorandum for his own private use and for General Washington.

No. 12.

[In the traitor's own hand]

[Endorsed.]

Remarks on Works at Wt Point a Copy to be transmitted to his Excell'y General Washington.

Sepr 1780.

Fort Arnold is built of Dry Fascines and Wood is in a ruinous condition, incompleat, and subject to take Fire from Shells or Canasses.

Fort Putnam stone wanting great repairs the wall on the East side broke down, and rebuilding From the Foundation at the west and South side have been a Chevaux de Frise on the Wst side broke in many Places. The East side open, two Boom Proofs and Provision Magazine in the Fort, and slight Wooden Barrack—A commanding piece of ground 500 yards West between the Fort and No. 4—or Rocky Hill.—

Fort Webb Built of Facines and Wood, a slight Work very dry and liable to be set on fire as the approaches are very easy, without defences save a slight abathus.

Fort Wyllys built of stone 5 feet high the Work above plank filled with Earth the stone work 15 feet the Earth 9 feet thick.—No Bomb Proofs, the Batteries without the Fort.

Redoubt No. 1. On the south side wood 9 feet thick, the Wt. North and East sides 4 feet thick, no cannon in the works, a slight and single Abetters, no ditch or Picket. Cannon on two Batteries. No Bomb Proofs.

Redoubt No. 2. The same as No. 1. No Bomb Proof.

Redoubt No. 3, a slight Wood Work 3 Feet thick very Dry no Bomb Proofs, a single Abatters, the work easily set on fire—no Cannon.

Redoubt No. 4 a Wooden work about 10 feet high and fore or five feet thick, the West side faced with a stone wall 8 feet high and four thick. No Bomb Proof, two six pounders, a slight Abatters, a Commanding piece of ground 500 yards Wt.

The North Reboubts on the East side built of stone 4 feet high, above the stone wood filled in with Earth, Very Dry, no ditch, a Bomb Proof, three Batteries without the Fort, a poor Abatters, a Rising piece of ground 500 yards So. the approaches Under Cover to within 20 yards.—The Work easily fired with Faggots diptd in Pitch &c.

South Redoubt much the same as the North a Commanding piece of ground 500 yards due East—3 Batteries with out the Fort.

The following Document explains itself :—

No. 13.

In Arnold's hand-writing.]

[Endorsed.]

Copy of a Council of War held Sepr 6th 1780.

At a Council of War, held in Camp Bergen County Sept. 6th, 1780.

Present—the Commander-in-Chief.

The Commander-in-Chief states to the Council, that since he had the honor of laying before the General Officers, at Morristown, the 6th of June last, a general view of our circumstances, several important events have occurred, which have materially changed the prospects in the Campaign.

That the success expected from France, instead of coming out in one body, and producing a Naval Superiority in these Seas, has been divided into two Divisions, the first of which only consisting of seven ships of the line, one forty-four and three smaller Frigates, with five thousand land Forces, had arrived at Rhode Island.

That a Reinforcement of six ships of the line from England having reinforced the Enemy, had made their Naval Forces in these seas amount to Nine Sail of the Line, Two Fifties two forty fours, and a number of smaller Frigates, a Force completely superior to that of our Allies, and which has in consequence held them Blocked up in the harbor of Rhode Island till the 29th ult., at which Period the British Fleet disappeared, and no advice of them has since been received.

That Accounts received by the Alliance Frigate, which left France in July, announces the Second Division to be Confined in Brest with several other Ships by a British Fleet of thirty two Sail of the line, and a Fleet of the Allies of Thirty six, or thirty eight Ships of the line ready to put to sea from Cadie to relieve the Port of Brdst.

That most of the States in their answers to the requisition made of them, give the strongest assurances of doing every thing in their power to furnish the men and supplies required for the expected Co-operation. The effect of which, however, has been far short of our expectations, for not much above one-third of the Levies demanded for the Continental Battalions, nor above the Same proportion of Militia have been assembled, and the Supplies have been so inadequate that there was a necessity for dismissing all the Militia, whose immediate services could be dispensed with to lessen our Consumption, notwithstanding which the Troops now in the Field are severely suffering for want of Provision.

That the army at this Post and in the vicinity in opperating Force consists of 10,400 Continental Troops and about 400 Militia, besides which is a Regiment of Continental Troops of about 500 at Rhode Island left there for the assistance of our Allies, against any attempt of the Enemy that way, and two Connecticut State Regiments amounting to 800 at North Castle.

That the Times of Service for which the Levies are Engaged will expire the first of January which, if not replaced, allowing for the usual Casualties, will reduce the Continental Army to less than 6000 men.

That since the state to the Council above Refered to, the Enemy have brought a detachment of about 3000 men from Charles Town to Yew York, which makes the present opperating Force in this Quarter between Ten and Eleven Thousand men.

That the Enemies Force now in the Southern States has not been lately ascertained by any distinct accounts, but the general supposes it cannot be less than 7,000 (of which about 2,000 are at Savannah) in this estimate the Diminution by the Casualties of the Climate, is supposed to be equal to the increase of Force derived from the Disaffected.

That added to the loss of Charles Town and its Garrison accounts of a recent misfortune are just arrived from Major *General Gates*, giving advice of a general action which happened on the 16th of August near Campden: in which the army under his Command met with a total de-

feat, and in all probability the whole of the Continental Troops, and a Considerable part of the Militia would be cut off.

That the State of Virginia has been sometime exerting itself to raise a Body of 3000 Troops to serve till the end of December 1781, but how far it has succeeded is not known.

That Maryland had Resolved to raise 2,000 Men of which a sufficient number to compose one Battalion was to have come to this army. The remainder to recruit the Maryland line—but in consequence of the late advices, an order has been sent to march the whole Southward.

That the Enemies Force in Canada, Halifax, St. Augustine, and at Penobscot, remains much the same as stated in the preceding Council.

That there is still reason to believe the Court of France will prosecute its Original Intention of giving effectual succor to this Country, as soon as Circumstances will permit; and it is hoped the second Division will certainly arrive in the course of the fall.

That a Fleet greatly superior to that of the Enemy in the West Indies, and a formidable land Force had sailed sometime since from Martinique to make a Combined attack upon the Island of Jamaica, that there is a possibility of a reinforcement from this quarter also, to the Fleet of our Ally at Rhode Island.

The Commander in Chief having thus given the Council a full view of our present Situation and future prospects, requests the Opinion of each Member in writing, what plan it will be advisable to pursue, to what objects Our Attention ought to be directed in the course of this fall and winter, taking into consideration the alternative of having or not having a Naval Superiority, whether any Offensive operations can be immediately undertaken and against what Point, what ought to be our immediate Preparations and dispositions, particularly whether we can afford or ought to send any Reinforcements from this Army to the Southern States, and to what amount, the General Requests to be favored with these opinions by the 10th instant at farthest.

TOM PAINE AND HIS FOLLOWERS.

[SECOND ARTICLE.]

[We gave in the last number of this magazine, an able article from the "Louisville Journal," upon the character and writings of that apostle of liberty and defamer of Christianity, Tom Paine. The following more extended and still more interesting article is from the same source. It handles the subject in a very able manner, and is no less fraught with instruction than interest. While it does justice to the efficient aid rendered by Paine to the progress of civil liberty, it exposes in strong colors the wounds he inflicted on morals and religion, and his sad degradation as a man."

TOM PAINE AND THE RED-REPUBLICANS, OR TURNERS.

In a previous number of this journal we promised a further exposition of the matters connected with the outrageous, insolent, and lawless extravagances of the band of German Atheists and anarchists, called Turners, in this region, but known under various other names in various parts of the country. Prior to the hegira of these enemies of the law, of order, of civilization, and of religion, from the successful fields of freedom in Europe, feeble, sickly, dying attempts had been made by a few persons, in a small number of places, to keep alive the memory of Tom Paine, but so irrevocable was the public sentiment of Americans of all parties, as to the character of the man, that these efforts had nearly died out when the influx of Hecker's Red-Republicans was flooded upon our shores. Then that idol of infidelity found appropriate worshippers, and the votaries were worthy of the temple. But for these men, Europe might now be rejoicing in the life-giving energies of Christian freedom; where now the vultures of despotism prey upon humanity, the republicanism which blesses North America would have been in the ascendant, and the deep wrongs of centuries might now be atoning for their errors and crimes. The light that shone upon the Mount of Transfiguration, and which was carried over the world by twelve men, triumphant over every obstacle, which gave life and strength to human intellect, which shed the joys of peace and freedom over the human soul, was roused for a little while in Europe from its long latency. It was again the star of hope and joy, and freedom was once more about to bless the old Teutonic race, as when Hermann, at the head of a renovated people, crushed the legions of Varrus and caused wailing in the palaces of Augustus Cæsar. But, alas! the light of so much joy and hope suddenly went out; the ghouls and vampires of red republicanism crawled from their caverns and dens and carried more terror to the victors over Austrian and Prussian domination, than the despotism of the aristocracy was able to create. Successful freedom sought shelter under despotism from red republicanism. The land spewed out these atheistic anarchists who defied alike God and all human experience; the waves of European horror and alarm threw them upon our land, and they crawled from the surf on our coast, demanding the destruction, the utter destruction, of all that millions of freemen had been engaged for nearly a century in building. All ideas of God, of Bible truths, of religious civilization, of faith in the past, and of hope for the future were to be blotted out at the demand of these houseless, landless anarchists. Amidst the profanities of their Song of the Weavers, they had cursed the land of their birth, and the first notes that they raised from the waves that had driven them to America were a demand of the privilege of cursing the land that had given them a refuge. They had realized the fate of Arian in the poem of the Harvard Student:—

> "Sin is a ladder, which, as the soul climbs,
> Despair takes out the rounds, and stops return
> Save by a leap, which largely must increase."

The anarchists of Germany, after landing here, soon discovered the congenial qualities of Tom Paine, and they adopted him as their idol. It is not probable that many of them ever read a chapter of his political or irreligious writings, but that made no difference. It was enough for them that he was a coarse, profane, low, vulgar enemy of the Bible, who, amidst that abundant self-conceit, which all who knew him recognized, and the maddening dreams of whiskey, might have hoped for the services of the Turners—such services as Mokanna, the veiled prophet of Khorassan, saw in perspective for himself:—

> "So shall they build me altars in their zeal,
> Where knaves shall minister and fools shall kneel;
> Where faith may mutter o'er her mystic scroll,
> Written in blood—and bigotry may swell
> The sail he spreads for heaven with blasts from hell."

The "Anzeiger," as we quoted it on Saturday, announces Tom Paine as "one of the associate founders of the American republic." In what distempered vision, what maudlin dream or foolish reverie that absurd falsehood originated, we have no means of even imagining. Such a libel upon the fathers of American freedom is a disgrace to the hand that first penned it, and we scorn to vindicate such names as those of Samuel Adams, Patrick Henry, John Hancock, Thomas Jefferson, and John Adams, from such a contemptible, nay atrocious falsehood.

The "Anzeiger" also expresses surprise that Tom Paine's memory should now be held in such general contempt by Americans, when one hundred thousand copies of his "Common Sense" were sold at a time when the colonies scarcely numbered three millions of people!

We think we explained this mystery in our first notice. When Tom Paine wrote his political pamphlets he pretended to be a Christian, and, when his first publication appeared, it was uttered to a people who had been largely instructed in republicanism before Tom Paine immigrated to Pennsylvania. He knew that these people were religious, and he was hypocrite enough to pretend to be a Christian. When he *unveiled* the hideous features of his mind, in the Age of Reason, his former friends and admirers left him almost to himself.—As some of these Turners have denied the facts stated by the "Journal" in its first notice of them, we proceed to establish the truth of all that we said.

In the "Common Sense" pamphlet, entitled "Monarchy and Hereditary succession," Paine appeals to scriptural chronology to show that as there were no early kings there were no early wars. And he urges "that the will of the Almighty, as declared by Gideon and the prophet Samuel, expressly disapproves of the government of kings. It is recorded that the Jews wished to make Gideon a king; Paine quotes from the Bible record the conversation of God with Samuel, and comments upon the whole scene, in the spirit of a Christian writer. And he uses this language: "Till then their form of government, that of Israel (*except in extraordinary cases where the Almighty interposed*), was a kind of republic. When a man seriously reflects on the idolatrous homage paid to the persons of kings, he need not wonder that the Almighty, ever jealous of his honor, should disapprove a form of government which so impiously invades his prerogative." What a champion of the revealed will of God!

Paine has a great deal to say about what God did and said. He urges that in "Adam all sinned," and speaks of "all mankind being subjected to Satan, and of monarchy and succession being a form of government which the Word of God bears testimony against."

In the paper entitled "Thoughts on the present state of American affairs," Paine says, "we claim brotherhood with every European *Christian*."

Again: "Let a day be solemnly set apart for proclaiming the charter; let it be brought forth, *placed on the Divine Law, the Word of God*."

"On the present ability of America" is a paper full of Paine's Christianity. He says: "For myself, I fully and conscientiously believe that it is the will of the Almighty that there should be a diversity of religious opinions among us; it affords a larger field for our Christian kindness." Again: "I look on the various denominations among us to be like children of the same family, differing only in what is called their Christian names."

In the "Epistle to the Quakers" he says:

"Even the dispersion of the Jews, though foretold by *our* Saviour, was effected by arms."

Again, in referring to George III., Paine says: "I conceive likewise a horrid idea in receiving mercy from a being who at the *last day* shall be shrieking to the rocks and mountains to cover him," etc.

In No. 2 of "Crisis" Paine says: "It seems as if God had given them over to a spirit of infidelity, and that they are open to conviction in no other line but thoughts of punishment." And in the same number he says: "I wish, with all the sincerity of a Christian," etc.

Such are a few specimens of the profligate hypocrisy which Paine practised upon the readers of his political pamphlets, and now, when the American people know what a hypocrite he was, the "Anzeiger" is astonished that Americans do not love Tom Paine's works!

We have quite clearly established the charge of hypocrisy against the idol of the German red republicans. We now turn to considerations of the contempt into which he fell some twenty years before his death. After Paine's singular and remarkable escape from the guillotine of Robespierre, Mr. Jefferson tendered him a passage from France to America in the national ship, the "Maryland," which had conveyed Mr. Dawson to France on public business. Paine had written to Mr. Jefferson begging this favor, and it was granted in the way we have mentioned. Paine returned in 1801. There are living witnesses to the fact of the beastly character of his habits in the city of New York, and at Greenwich, or New Rochelle. Many years ago, old Grant Thorburn published in the city of New York an account of Paine's habits. He called to see Paine at the City Hotel, on the day after his return to the United States. Old Thorburn, the Laurie Tod of Galt's novel, says that he was clerk in the Scotch Presbyterian church in Cedar street at the time, and the kirk-session suspended him from psalm-singing for three months, because he had shaken hands with Tom Paine.

A few years after this, when Paine was almost universally shunned on account of his vulgar writings and hard drinking, he boarded with Carver, a blacksmith and horse doctor. Thorburn having intimate social relations with Carver, often saw Paine. Thorburn told him that he believed "his life was spared from the guillotine in France, in order that he might give to the people of this country, where his writings had been so very popular, a living comment on his doctrines, and to show to all the world what human nature is, when left by the Creator to wander in its own councils." "Here," said Thorburn, "you sit in an obscure uncomfortable dwelling, bedaubed with snuff and stupified with brandy; you, who were once the companion of Washington, Jay, and Hamilton, are now deserted by every good man, and even respectable Deists cross the streets to avoid you." Paine replied, "I care not a straw for the opinions of the world." Thorburn says, "He was the most disgusting human being you could meet in the street. Through the effects of intemperance, his countenance was bloated beyond description —he looked as if the mark of Cain was stamped upon his countenance. A few of his disciples, to hide him from the gaze of men, conveyed him to Greenwich, where they supplied him with brandy till he died."

These facts were published by Grant Thorburn in the midst of hundreds of persons who would have contradicted the statements if it could have been done successfully. There are now living persons at New Rochelle who were witnesses of the closing years of Paine's life. He died in 1809. We have seen persons who conversed with Paine's gardener, who was his errand-boy after brandy, and he bore testimony to his dreadful habits of drunkenness, profanity obscenity, vulgarity, and filth. When he died, and was huddled into his grave, there were but few persons at his funeral. His awful habits in life had driven nearly everybody from his society. No one but an old negro was found willing to give the dead remains of the author of the "Rights of Man," the companion of Washington, of Hamilton, and of Jay, and a member of the French Constituent Assemby, who had voted on the fate of Louis XVI., the decency of a speech at the grave. And living persons bear testimony of the character of the negro's speech. It was a species of doggrel, and ran in this wise:—

> "This is Tom Paine—here he lies;
> Nobody laughs and nobody cries.
> Where he is gone or how he fares,
> Nobody knows and nobody cares."

But why did Tom Paine's infidelity create so much disgust? His "Age of Reason" is probably the very feeblest attack ever made upon the Bible. An intelligent Sunday school pupil could triumphantly refute it. Hume and Gibbon maintained their relations with society, and with religious persons after their attacks upon Christianity, and why could not Paine. Simply, because of his coarseness, profanity, profligacy, and dishonesty. We have already shown his treachery in publishing confidential documents, while he was clerk to the Committee on Foreign Affairs to the Continental Congress. That act of treachery forced him to resign his office, and involved this country in a trouble that threatened the loss of the French Alliance. Gerard, the French Minister, complained loudly of Paine's publication, and Congress had to pass a resolution, expressly denying the statements of Paine. That was a part of his services in *founding this republic*—his treachery came near prolonging the revolutionary struggle for years, if indeed, it did not come near involving its failure.

We give but two specimens of Paine's glaring falsehoods about the Bible. He quotes Matthew XXVIII. and 7th, and represents that the angel said to the two Marys, "Behold Christ is *gone* before you into Galilee, there you shall see him." Paine makes this falsehood in order to find a contradiction to it in the fact that the Marys met Christ in Jerusalem. But, if the reader will turn to Matthew, he will find that the angel said, "he *goeth* before you into Galilee," which was literally true. In the 26th chapter of Matthew, 32d verse, the Saviour had declared, "after I am risen again, I will go before you into Galilee," and the angel's language was a souvenir of that promise.

Again, in putting together the statements made by Matthew, Mark, Luke, and John, of occurrences after the resurrection, Paine says, "When it is considered that the whole space of time, from the crucifixion, to what is called the ascension, *is but a few days, apparently not more than three or four, and that all the circumstances are reported to have happened near the same spot, Jerusalem, it is, I believe,* impossible to find in any story upon record, so many and such glaring absurdities, contradictions, and falsehoods, as are in those books."

Now, Messrs. Turners, if you have one particle of respect for truthfulness, we pray you to look at that statement of your high priest of reason. No man, having the least claim to honesty, could have manufactured such falsehood. Look now, at the statements of Matthew, Mark, Luke, and John, as to the three or four days time, and Jerusalem as the locality that embraced the occurrences between the resurrection and ascension. John says that Christ appeared to his disciples, when Thomas Didymus was not present—the same John says he appeared to them again, *eight days* afterward, when Thomas was present, and this latter was at the Sea of Tiberias, *some sixty miles from Jerusalem.* And Luke says he showed himself alive after his resurrection by many infallible proofs, "being seen of the Apostles *forty days*, and speaking of the things pertaining to the kingdom of God." And Paul, in one of the cities of Greece, among the keenest intellects then in the world, not only bore personal testimony to these things, but declared that there were then more than two hundred and fifty living witnesses to the fact of the resurrection, and to the occurrences that succeeded that event. In truth, there is not one fact in the whole history of the past that stands on more invulnerable testimony than the resurrection of Jesus Christ and its kindred events. It is as perfectly proved as that Tiberius Cæsar wore the purple in partnership with Augustus, and afterwards became sole Emperor of Rome. The facts were proclaimed at Rome, where the documents of Judea could have controverted them, for Pontius Pilate was an officer under Tiberius. But we shall not press these proofs. We should rejoice to see the Turners vindicating their claims to reason by its proper exercise. If they have any desire to see how Tom Paine's "Age of Reason" stands in the presence of logical truth, we refer them to "Watson's Apology," where they will find the most rigid investigations coupled with gentleness and courtesy. Their high priest, Tom Paine, says, "where knowledge is a duty, ignorance is a crime," and if knowledge respecting a religion that has commanded the earth for nearly nineteen centuries, that has received the faith and obedience of the brightest intellects that time has known, is not a duty, pray what can be? Polycarp, Justin Martyr, Chrysostom, Augustin, Jerome, Leibnitz, Luther, Newton, Grotius, Lord Bacon, and hosts of kindred spirits, were not men likely to be ridden by priests or misled by superstition.

We fear that a great deal of the faith of the German rationalists is as confined and physical as that which Carlyle ascribes to Cagliostro, the arch imposter of the eighteenth century. Carlyle says, the only item of faith he had was, "that ginger is hot in the mouth," and Pulci's Margute, in his answer to Morgante, when the latter asks him if he believed in Christ or Mahomet, merely spreads the article; the elements are the same:—

> "Margutte answered then, to tell thee truly,
> My faith in black 's no greater than in azure;

But I believe in capons, roast meat, bouilli,
And, above all, in wine, and carnal pleasure."

But even for this life, these are small enjoyments compared with that enfranchisement of the faculties of the soul which teaches that God is the Creator and Redeemer of men; which teaches that this earthly pilgrimage is but a probationary state, to train and fit men for a future life. The purity, the freedom, the aspirations given to humanity by Christianity are worth all that Greece and Rome ever knew or imagined without it. Socrates, after pushing his daring thoughts far, far beyond those of all other men, after standing confessedly above all other heathen intellects, despairingly said that all was dark, and that human nature needed a messenger from the skies to aid its vision as to the origin and future of man. And if that towering intellect could thus acknowledge its inherent weakness, what may the humbler minds of the Turners hope?

We earnestly desire the welfare of the Turners, the Freemen, and all the other forms of German infidelity. But we should be inattentive to all the lessons of history if we failed to warn them, that a steady faith in the Bible, and obedience to its precepts and principles, are the only guarantees for republican freedom. On those ideas our revolutionary fathers based this republic, and as long as it remains upon them it may bid defiance to all assaults. We pray these phases of infidelity to look into the profoundest depths of history in search of what we submit to their consideration to-day.

There are two conspicuous miracles standing in the presence of the earth to-day. They are as inexplicable, without the Bible revelation, as any problems known to men; they are as true miracles as the incarnation of God, the resurrection of the body of Jesus, or his ascension from Mount Olivet into heaven. Neither priestcraft nor superstition created or shaped either of the miracles of which we speak, as now present in the world. We shall show that humanity could not have made either of them.

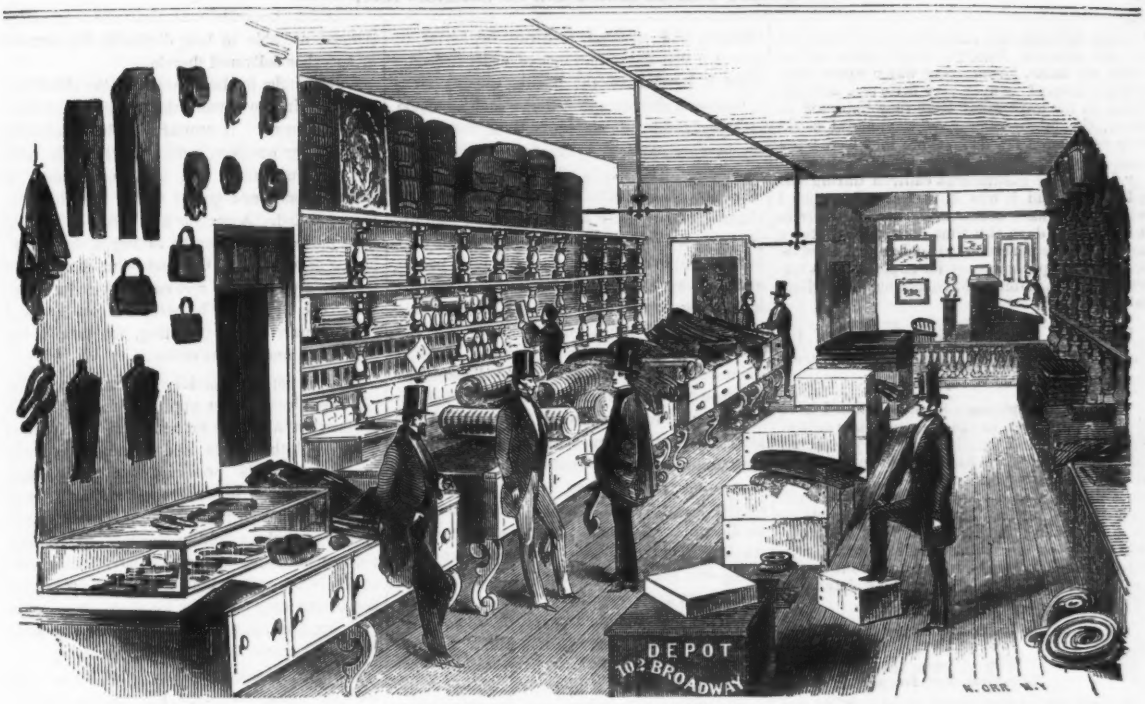
The first of these miracles is *the art of speech*. There is not now one human being who ever uttered a word without hearing words spoken. There never was one on earth that ever spoke except from previously hearing speech. History has numerous examples which incontrovertibly establish the facts of which we speak. The experiment of Ptolemy in order to discover the original language, the young Frenchman, whose case was thoroughly investigated in 1824, by the Academy of Sciences, the history of Casper Hauser, in Germany, cases of loss of hearing and loss of speech in this city, place the facts we now exhibit beyond any successful contradiction. The moment a deaf man hears, that moment he ceases to be dumb, because he can then acquire the art of speech. If, then, the progenitors of the human race had not heard speech from some source that possessed the power to speak, the whole human family would have been dumb, so far as speech is concerned, at this hour. Plato and Aristotle attempted to ascertain the origin of speech, and both gave up the inquiry in despair. But Moses shows from whence man learned the art of speech. He does not commit the blunder of making Adam talk before he heard speech, but says Adam heard the voice or speech in the garden. All history on this point, all daily observation conclusively proves the fact, that man acquired the art of speech from a power superior to himself. There is not one truth in the whole history of mankind that gainsays this invulnerable fact. God taught Adam to speak by speaking to him, and through Adam the human family have retained the power thus acquired directly from the Creator.

The second miracle which has been before the eyes of the human family for nearly three thousand years, and is now in full life before us, is the separate condition, and preservation, as such, of the Jews. Three thousands years ago, Moses predicted a series of specified calamities which should befall them if they disobeyed the laws which he had just delivered to them. There were seventeen distinct points in the prophecy. There were to be two captivities; one, after a specified time, was to cease; they were to return to Judea, again rebel against the divine laws, and then another series of disasters were to happen. The second captivity was to differ widely from the first. It was to occur in fifteen hundred years from the time that Moses wrote the prediction. The King of Babylon was to be the author of the first captivity; it came to pass; the predictions were translated into the Chaldee language; and when the Greeks were masters of the world, they were translated by the seventy into Greek, and scattered over the Greek world. When Alexander the Great was in Judea, the predictions were shown to him. These predictions were thus in Hebrew, in the hands of the Jews, and their enemies, the Samaritans, in Chaldee among the Chaldeans, and in the Greek language among the Greeks; so that they were widely diffused in human languages, in various parts of the world, centuries before Titus, the author of the second captivity, was born. More than forty years before Titus was born, Jesus Christ repeated the predictions of Moses respecting the calamities that were to come upon the world, and added to the details. Those predictions were preached all over the world, were written in Greek, Hebrew, and Latin, while Judea was flourishing under the Herods. Profane historians, and Josephus, as bitter an enemy of Jesus Christ, as any *Turner* can be, record the exact fulfilment of each prediction thus made by Moses and by Jesus Christ. And at this moment the miracle stands before our eyes. There is not one person who can be distinguished as an Assyrian, a Chaldean, a Greek of the Greeks, or a Roman of the Cesarean world, but here are the Jews, in spite of, and in defiance of nearly nineteen centuries of the most grinding and destructive oppression, as distinct from all that surrounds them, as they were the day that Joshua crossed the Jordan with them into the Holy Land. Can Rationalism, in all its boasted power, even in its surreptitious claims, give any clue apart from revelation to a solution of these two startling problems. They stand imperishable and invulnerable monuments of the truth of the Mosaic revelation.

We entreat these Turners to look into the pure word of revealed truth and survey its grand and glorious developments. A higher duty does not belong to human beings. We are persuaded that there is not a book on earth which stands on a more invulnerable basis, in its claims and statements, than the Bible. Whenever the light of unclouded reason examines that basis, everything that truth and testimony teach, will be found there in their purest forms. And in the words of one, who, at one time, at least, equalled any Turner or Freeman in his hatred of the Nazarene and of his doctrines, let all remember, that "God, who in sundry places and in divers manners anciently spoke to the fathers by the prophets—has in these last days spoken to us by a Son, whom he constituted heir of all things (through whom also he made the worlds), who, being an effulgence of his glory and an exact image of his substance, and upholding all things by the word of his power, when he had made purification of our sins by himself, sat down at the right hand of the Majesty in high places. He is so much better then the heavenly messengers by how much he has inherited a more excellent name than they. * * * When he brings again the first-born into the world, he says, Yes, let all the heavenly messengers worship him. * * * And to the Son, thy throne, O God, endures forever. The scepter of thy kingdom is a scepter of rectitude. Thou hast loved righteousness and hated wickedness, therefore God, thy God, has anointed thee with the oil of gladness above thy associates." And the same writer, who assisted at the killing of the first Christian martyr, and who persecuted Christians in every way, says, after recounting the awful things at Mount Sinai, when the law was given to Moses:—"Take care that you refuse not him, speaking. For if they did not escape who refused him who spake on earth, much more we shall not escape who turn away from him speaking from heaven. His voice then shook the earth. But now he has promised, saying,—Yet once I shake not the earth only, but also the heavens! Now, this speech, 'YET ONCE,' signifies the removing of the things shaken, is of things which were constituted, that the things not to be shaken may remain. Wherefore, we having received a kingdom not to be shaken, let us have gratitude whereby we may worship God acceptably, with reverence and religious fear. For even our God is a consuming fire."

These things were uttered fully eighteen hundred years ago, in the very midst of the witnesses of the resurrection of Christ, and of the miracles of his Apostles and other disciples. They are as imperative and as vital this day in Louisville, as when they were spoken. The Bible, believed and obeyed, is the only security for freedom under the guarantees of laws and morals, and every lover of republicanism should know the foundation on which the Bible rests, and stand steadfastly by them.

AT a late library sale in London there were several lots of manuscripts and of eastern books, which brought a very high price. Thus, a Persian manuscript, Thah Jahan Naura, two volumes in folio of 1616 pages, with thirty-six illuminations, of which some were portraits of the kings of Persia, were bought at the price of £94; it is probable, that this manuscript, which was first in the possession of the king of Delhi, will enrich the library of the British Museum. The Koran in Arabic, 868 pages, was sold for £7 5s.; the Odes of Hafiz, in 8vo, 384 pages, £3 2s. 6d.; the Chinese Dictionary by Morrison, 6 volumes, £12 15s.



SALESROOM AT THE WAREHOUSE.

OUR MANUFACTORIES.

NUMBER TWO.

GUTTAPERCHA.

Concluded from page 378 of Volume I.

THE company employ at the present time about one hundred and seventy-five hands, one hundred of whom are females, but, from present indications, a largely increased force will be required during the coming summer. We were much pleased with the appearance of the operatives (*especially* the female portion). The girls all work by the piece, having a stated price for each pair of shoes, cap, coat, or whatever articles they may make. We understood their wages average from $4 to $5,50 per week. Attached to this establishment, is a laboratory for testing the purity of the different articles used, and for preparing the various chemical compounds used in the establishment, as well as in its experimental department.

There is also a blacksmith shop, with various tools incident to it, for repairing, at a moment's notice, any of the machinery, molds, or tools that might, by accident, be damaged; also a carpenter's shop, for making and altering patterns, making boxes, etc., etc. All the different shops are heated by steam pipes, and lighted by gas, there being over two hundred and fifty burners for the latter. In every principal apartment there is also a two-inch Croton pipe, to each of which is constantly attached from two hundred to four hundred feet of hose. In fact, for good order, cleanliness, and general management, it has rarely been our good fortune to examine a more perfect establishment than the manufactory of this company.

In conversation with the superintendent, we were forcibly impressed with the following remarks, as from it we were convinced that we had drawn profitable and practical conclusions from our experience in the matter. He says—"Many persons suppose that guttapercha and indian-rubber are identical; but they are entirely different; and should manufacturers of indian-rubber work their material as we work guttapercha, it would be ruined beyond redemption; and should we undertake to work our substance as they do indian-rubber, we would produce an article of no value whatever. Indian-rubber, from the first process to the last, is soft and pliable, while guttapercha is stiff and springy, like whalebone, until it goes through the vulcanizing process, which then entirely changes the nature of it. It is then soft and pliable as indian-rubber, and it would be difficult for one not accustomed to goods made of guttapercha to tell them apart, were it not for the peculiar balsamic, woody smell that always accompanies fabrics made of the last-named material."

Of the uses and appliances of guttapercha, a volume could be written, but as we have previously remarked in this article, to our mind, its adaptation to water-proofing texatile fabrics, is the most important. When indian-rubber was first used for this purpose, it was thought that the great desideratum was obtained, and large orders were received from government, for supplies for the army and navy; but, after trial, it was found, from its inability to stand changes of temperature, to be valueless.

In fact, by advices by the last steamer, we understand that the 40,000 suits of indian-rubber clothing made in England, for the British army in the Crimea, and of which the "London Illustrated News," contained such graphic accounts, has proved to be utterly worthless, by the decomposition of the rubber. And both in this country and in Europe, we think its further employment for government purposes is wholly discontinued; and that vulcanized guttapercha, which has now been thoroughly tested both for naval and military purposes, will be and is adopted in its stead. Since this article has been in the course of publication, this Company has received large orders from our own government, and also from the British government for the army in the Crimea.

We have read a large number of certificates from our army and naval officers, in which they speak with the greatest confidence in regard to manufactures by the Rider patents.

Lieutenant Colonel J. H. Eaton, writing from Albuquerque, New Mexico, says:—

"I procured from your agent in New York, the last summer, several articles of guttapercha goods, appropriate to the use of an officer in campaign. These were used in my journey across the plains to this territory, and I have no hesitation in saying, that, compared to the old indian-rubber water-proof articles, they are of infinitely greater value.

"The tent cloth I used chiefly for a bed cover, and as a protection to my bedding; it was exposed to as great a heat from the sun as if used in a tropical climate, and without the slightest change or wear on its surface. As a durable article in texture, it was exposed to the fretting against sharp and rude articles always found in a baggage wagon, for two months, without any appreciable injury. The same remarks are applicable to the cloaks and traveling bags I used. As water-proof articles, the guttapercha goods I believe to be complete and perfect, suited to every climate and every kind of use."

Captain R. B. Marcy, in speaking of his late trip across the plains, says that during the summer months they were subjected to a climate with the thermometer ranging from 95 to 100 in the shade, and during a portion of the time there were very heavy rains.

"I have, previous to this trip, used the indian-rubber procured from several different establishments, but have never found it to answer a good purpose but for a short time, as the rubber appears to rot the fabric, and becomes soft and adhesive when used in a warm climate.—The canteens made of the rubber are almost totally worthless, as they communicate in a very short time a very disagreeable taste to water.

During my trip last summer, I was furnished by the Quarter Master's Dep't with rubber sacks, or tanks, for carrying water upon Pack Mules; I found them of very little use, as in addition to the unpleasant taste they imparted to water, the fabric soon gave way, and I could only use them a few days before they were worn out.

"I used the guttapercha canteen during the entire trip, and it was in perfect order when I returned. I have occasionally carried water in it for several days at a time, but could perceive no bad taste communicated to it, and I have no hesitation to pronounce it far superior, as a water vessel, to anything I have seen made of indian-rubber."

Lieutenant James Madison Frailey, of the United States ship "St. Mary's," writing from St. Catharines, Brazils, says:—

"I have great pleasure in stating that I have given a fair trial to the 'Guttapercha suit of clothing,' which I purchased from you about that period, and have found it in every respect as warranted by you. It was fully tested in the warmest weather, having passed through both tropics, and at times when rain fell in great abundance, during which time I was the only officer on board (other officers being provided with oil clothing), who, after a four hour's watch on deck, went below without having a wet thread upon him."

The following letter was received a few days since:—

U. S. Flag Ship, Independence,
Valparaiso, Chili, Feb. 5, 1855.

Sir:—I have experienced great comfort and protection during a recent passage around Cape Horn, from a suit of your guttapercha.

These goods are in my opinion, much superior to those manufactured from indian-rubber, if for nothing else, for their pliability, and their freedom from the smell and sticky property peculiar to that article.

If, as I understand, it be true, that when closely packed in large quantities, they are not subject to spontaneous combustion, I see no reason why they would not prove a good substitute for the pea and monkey jackets, at present supplied to our seamen.

With a view to their adoption as such, I would recommend that an application be made to the Bureau of Provisions and Clothing for the Navy at Washington, in order to their being tested on board some one of our public ships. Respectfully, your obedient serv't,

Wm. Mervine.
Commanding United States Naval Forces in the Pacific Ocean.

Mr. William Rider, President of the North American Guttapercha Company, New York.

In fact, had we space, we could give a host of evidence from government officers, masters of vessels, and others who have tested guttapercha in all weathers, and in all natural temperatures. Among others, we observe that Peter McCabe certifies that he was saved from the wreck of the ill-fated "Arctic," by a life preserver made by this company.

Another of the grand uses of this material is its appliance to tubing. The history of water carrying is the history of civilization. First, the spring at which the wayfarer stooped to drink; then the rude passage formed of trunks of trees laid end to end; then the aqueduct carried o'er hill and valley to imperial Rome; then the gay splashing fountain, with its routine of water carriers; lastly, the leaden pipe, which does its office stealthily beneath the earth, and bears the stream from Croton lake into our bath rooms, kitchens, etc. But perhaps even the reign of the leaden pipes is doomed, and we would not wonder to see them yet give way to guttapercha. Even while we write, the system of supply for large cities is undergoing changes, and medical men are beginning to perceive that the conveyance of water in leaden pipes is hurtful to the health, causing many serious and alarming disorders; such as mania, epilepsy, sudden death, nervous affections, paralysis, consumption, hydrocephalus, heart disease, etc. The whole of which are in many cases introduced into the system through the channel of our daily drink. For all sanitary purposes the guttapercha pipe is admirably adapted. It possesses wonderful strength, purity, and is entirely unaffected by frost. A series of interesting experiments were made some four years since, at the Birmingham water-works, to ascertain the strength of pipes of ¾ inch in diameter, and ⅛ inch thickness. These were attached to the iron main, and subjected for two months, to a pressure of two hundred feet head of water, without being in any way deteriorated. In order to learn the maximum strength of the pipes, they were connected with the company's hydraulic proofing pump, the regular load of which is 250 lbs. on the square inch. At this point they were unaffected, and the pump was worked up to 337 lbs., but to the astonishment of every one, the pipes still remained perfect. It was then proposed to work the pump up to 500, but it was found that the lever of the valve would bear no more weight. The utmost power of the hydraulic pump, therefore, was ineffectual to burst the pipe.

The guttapercha pipe that conveys the Croton from this city across the river to Blackwell's Island, is 1,000 feet in length, and of but 2½ inches in caliber. It has now been in use over three years, and from all indications is as good as new.

The medical profession soon became aware of the extreme value of guttapercha, in the practice of surgery. Dr. Oxley discovered it to be "the best and easiest application ever yet discovered in the management of fractures, combining ease and comfort to the patient, and very much lessening the trouble of the surgeon." He also employed it for bougies, capsules, tubes for syringes, etc. Dr. Montgomerie says, "so well does it mold itself to every sinuosity, that it is more like giving the patient a new bone, than a mere support." A man lately brought to the hospital, who had his lower jaw broken by a kick of a horse, and which was so severe as to cause hemorrhage from the ears, smashing the bone in several fragments, was able to speak and eat three days after the accident, and felt so well with his guttapercha splint, that he insisted on leaving the hospital within ten days. A gentleman of this city has lately applied this resin to the manufacture of artificial gums, and finds it answer the purpose much better than any other material yet employed.

In the conducting of sound, guttapercha, is also found remarkably useful. Speaking tubes of this substance for the conveyance of messages, are now fitted up in mines, railway stations, prisons, workhouses, hotels, and other large establishments. Partially deaf persons are found to appreciate its value; and ingenious apparatus for their benefit, has been devised, including the distribution of the guttapercha tubing over a church, or other large buildings, so that by seating themselves at particular parts, where these tubes terminate, such persons are able to hear distinctly the sermons or speeches delivered therein.

Guttapercha is also brought to the aid of the architect in the ornamental work of the interior of houses. It appears to be admirably adapted for cornices, centers for ceilings; also for picture frames, and many other uses to which plaster and papier maché have hitherto been applied. A curious and valuable use has been made of guttapercha tubing in the illumination of buildings. One end being attached to the gas pipe and the rest coiled round a cylinder. The light may be carried about by hand to any part of the building, the tube being coiled and uncoiled at pleasure.

Among the many articles to which guttapercha has already been applied, are, waterproof garments of all kinds for both male and female; carriage-cloths, table and pianoforte covers, horse covers, life preservers, traveling bags, boots and shoes, hats and caps, mechanics' and ladies' aprons, hospital sheeting, bathing mats, syringes, machine belting, fire buckets, paulins, tents, mail bags, knapsacks, haversacks, canteens, belts, water tanks, holsters, provision bags, tent carpets, camp blankets, cannon covers, leggins, amunition bags, bridles and other parts of harness, steam packing, military hats, cap covers, pistol cases and belts, carpetings, awings, sailors' bags, pocket wallets, nursery aprons and sheets, whips, car springs, parlor balls, dolls and other toys, drinking cups, wash basons, policemen's batons, oil cans, acid vats, funnels, ear trumpets, picture frames, surgical splints, powder flasks, sponge bags, book covers, gun and sword cases, galvanic batteries, hose and tubing, covering for telegraph wires, guttapercha tissue for ladies' dresses, splints for dislocations, combs, buttons, canes, knife handles, boxes, hot water bags for cholera, pencil erasers, saddle bags, pump buckets, boats,—in fact, we could go on almost *ad libitum*, but space forbids, and no doubt the above enumeration will give a good idea of the vast extent of the general appliances of this, to us, new and truly valuable substance.

We would feel that this paper was incomplete were we to omit alluding to William Rider, Esq., the President of the North American Guttapercha Company, and the principal genius in the invention of the art of vulcanizing the substance that has been our text. Mr. Rider is truly a wonderful man, and has valuable qualities rarely seen combined in the same individual. Independent of his inventive and scientific attainments, he is a shrewd, active, intelligent business man; and the more difficult the object to be attained, the more suitable the element for him, and the more certainty of its being overcome, and the desired result accomplished. The first we heard of Mr. Rider, he was engaged with Goodyear, and, we have understood, that it was mainly through the instrumentality and means of Mr. Rider, that Goodyear obtained his art and patents for vulcanizing indian-rubber. Mr. Rider formed and successfully put in operation the Union Rubber Company; but when he discovered the superiority of guttapercha he sold out and devoted his whole attention to that subject; and the above statements are convincing proofs of his success. The North American Guttapercha Company was also formed by him. He has been the president

and active manager from the first. We are confident the stockholders will keep him there. Such men as William Rider are an honor to any community, and the history of their lives, is the true history of the country in which they live. In our opinion we cannot have too many such.

Since the above was in type we have received the report of the Board of Government Officers, who were appointed to examine fabrics covered with vulcanized guttapercha, with especial reference to its introduction in the army of the U. S. The examination was a most thorough one, the articles being tested in various ways,—sometimes by an extreme heat, at others by the opposite verge of cold. Shoes were filled with vinegar, oil water, alcohol, etc.; and, except the alcohol, which was slightly tainted in taste (although each liquid had remained in the vessels several days), they answered the purposes most admirably. In conclusion, the Board strongly recommend its adoption and use for the purposes specified. It, therefore, gives us great pleasure to find all our most sanguine predictions are sustained by such competent authority.

THE PRESENT WAR IN EUROPE.

[The following letter from an American in Paris to his friend in Washington, published in the "National Intelligencer," contains, in a compact form and well written, a large amount of interesting information upon the great struggle now going on in Europe.]

Paris, April 19, 1855.

The military movements, shipments of all kinds of stores and munitions of war, embarkation of troops, stores, mules, etc., continue to be made at the southern ports of the Empire, on a gigantic Napoleonic scale, and indicate but little prospect of peace, or the speedy downfall of Sevastopol. Up to this time 145,000 troops have been embarked for the East from Marseilles, Toulon, and Algiers. Forty-five to fifty thousand more are now going forward, making nearly 200,000 men, that have gone or are going to that slaughter-house, the Crimea. Thirty-five thousand horses and mules have also already been sent there, and from six to eight thousand more are now at or near Marseilles going forward as rapidly as possible. It is in vain to estimate the *materiel* gone or going, which far exceeds the quantity prepared for the great Russian campaign, in 1812. One item that has been shipped is 350,000 bomb-shells, and 150,000 more are now ready for shipment. Cannon balls go by the cargo, and every vessel takes more or less of them. Several hundred pieces of battering cannon, one hundred and fifty additional for the siege, and mortars of all sizes, are now being sent. Muskets sufficient to arm the entire male Turkish population capable of bearing arms, and powder in quantities that would blow up the earth and reduce it again to chaos; provisions of all kinds; clothing, horses, boards, planks, waterproof tents, and other supplies of every description have gone, and are going in quantities that almost exceed credence.

The vastness of the resources and power of this country is strikingly exhibited by what she is now doing, and all apparently without any great effort, and certainly without the least sign of exhaustion. In former wars, to put afloat on the ocean a military expedition of twenty or thirty thousand men was considered a wonderful thing, but now France sends two hundred thousand to the remote end of the Black Sea, with less effort and in less time than she dispatched the expedition of thirty thousand men to Egypt, in 1798, under Bonaparte.

There are 460 cannon and mortars of the largest size mounted and playing on Sevastopol, whilst the Russians, it is said, have 2,000 pieces in position for the defense of the place, with a still overflowing arsenal. All the above is exclusive of the artillery of the armies on both sides.

France at this moment is decidedly the most powerful nation of the world, and is ruled by an extraordinary man. The Emperor oversees everything, never appears to be hurried, drives daily about Paris, alone or accompanied by the Empress; he neither dreads the Legitimists, Orleanists, Red Republicans, nor the assassin's poignard; he thinks himself "the man of destiny."

More than nine hundred merchant vessels, of from 300 to 2,000 tuns, are now in public employ in connection with the war in the East. They are generally chartered for six months, certain. Seventy private steamers, some of the largest size, are also in this employ, besides the large number of regular war steamers. Fifty steamers are constantly on duty between Constantinople and Sevastopol.

A letter which I have seen from Marseilles mentions the following American vessels:—

Clipper ship "Ocean Herald," 2,200 tuns, chartered at $5 per tun per month, and had just sailed with 180 horses and 1,700 tuns of *materiel*.

Ship "Ticonderoga," 1,500 tuns, loading with 1,200 tuns of *materiel*, 200 horses, and 200 troops; chartered at $4½ per tun per month.

Ship "Emma," 1,100 tuns, same kind of cargo; chartered at 17 shillings sterling ($4¼) per tun per month.

Ship "Great Republic," 3,500 tuns, and "Queen of the Clippers," 2,400 tuns; the former chartered at 17 shillings ($4¼) and the latter at 16 ($4) per tun per month. The former was expected to arrive from London and the latter from Malta, and both to load with munitions and warlike stores and deck loads of horses.

Ship "Kate Howe" had sailed for Algeria to load with hay and barley for Sevastopol, at $11 per tun, measurement, for the trip.

Ship "Anna Tift" loaded at Toulon with stores at $10 per measurement tun.

Steamer "William Penn," 600 tuns, chartered at $10,000 per month and the Government to furnish coal.

Nineteen others have been chartered in England by the French Government to proceed to Marseilles and Toulon to convey horses, mules, and stores.

All hopes of an early peace have vanished, and no one pretends to predict the duration of the war or the nations which are yet to be drawn into the vortex. What I always predicted is every day becoming more certain, that Austria will not take an active part against Russia, and the utmost which can be expected from her will be continued neutrality. The Allies may attempt to coerce her by threats as to Lombardy and Hungary, but I do not believe it will have the desired effect. Besides, it would be a dangerous game on the part of England and France, as it might drive Austria into an alliance *with* instead of *against* Russia, in which case she would be supported by Prussia and a large portion of the rest of Germany, which would be a very fearful combination for the Western Powers in the present position of their affairs, and one which they will not causelessly encounter.

Troops do not at present embark so gaily as formerly for the Crimea. It is no longer considered as a frolic. Sevastopol cannot, as at first intimated, be taken by a *coup de pied*, and they have a powerful and brave enemy to fight. This latter, however, would not deter Frenchmen, but they dread the distempers of the Crimea—typhus, dysentery, and cholera—before which all courage is unavailing, and which make dreadful ravages in their ranks, and sweep them down as if the angel of death continually hovered over them. The two former diseases are now raging in the camp to a fearful extent, and vessels returning from the Black Sea with sick and convalescent are put into strict quarantine, so great is the dread in France of these diseases. If the cholera should again appear in the Allied camp, they will have a dreadful summer before them.

This war has greatly reversed the order of commerce. Formerly the Black Sea was the granary of Europe and supplied half the continent with grain; now it is shipped in immense quantities from France and Algeria to supply the army. This fact is a proof that the Allies can derive but small supplies from the country, and that they command only the ground on which they are encamped.

The expenses of this war are incredible, and, instead of diminishing, seem to increase. The British budget is upwards of eighty millions of pounds sterling, of which thirty millions are for the war. In the last great war Great Britain carried it on in every quarter of the globe, and had her army, war garrisons and fleets at every point and on every sea; but now the above enormous expenditure is required when the war may be said to be confined to only a single point, and her army and fleet in every other quarter of the globe are in repose, on a peace establishment. Soon we shall hear "the groans of the Britons" from increased taxes, loans, falling off in trade, and general distres

What I suggested in a former letter is to be realized. An entrenched camp for 40,000 men is to be established near Constantinople, and will be occupied by French troops; the city is also to be strongly fortified. The French will be established in Turkey, and *will never again leave there.* Mark this prediction, for be assured it will be verified. *Doctor* Napoleon will take charge of "the sick man." The Turks are convinced that their long encampment in Europe is about being broken up. They are no longer rulers in their own territory. The "*infidel*" has possession of it, and means to remain. They would, however, much prefer the Russians, as they think they would be allowed freedom for their religion, and remain as they now do in many of the Russian provinces. In addition to the proposed entrenched camp the French are now constructing some immense and massive buildings there for the accommodation of troops, which cannot possibly be completed for several years, and are evidently intended for permanent establishments.

I still do not believe the Emperor will go to the Crimea. If Sevastopol had fallen, and he had established his entrenched camp near Constantinople, he might probably pay a flying visit under the enthusiasm which would prevail at home, and to show himself to the army. Still, in opposition to my own opinion, General ——, of the Imperial Guard, who took leave of the Emperor, a few days since, to embark for the Crimea, called upon me, and said the parting words of the Emperor were, "I shall soon see you at Constantinople." The 8th of May, it is even said, is fixed for his departure; still, I do not think he will go.

Notwithstanding the present state of European affairs, I am prepared to see some new and strange continental arrangements, even to the extent of an alliance between France and Russia, with a view to a division of the spoils. The booty to be divided would be Turkey, Egypt, Belgium, the Rhenish Provinces, and something from Italy.

Three days since, the railroad, for the first time, was opened through the whole distance from Paris to Marseilles—a distance of five hundred and fifty miles, which is now performed in nineteen hours, and is one of the most perfect works of the kind in the country. France has now complete lines of railroads to her northern and eastern frontier, and to several points on the Atlantic coast, and now this newly opened line to the Mediterranean. You, in the United States, can hardly realize the immense facilities which such works give for military operations on the gigantic scale in which the latter are conducted in Europe. May we never have occasion for them for such purposes in the United States; but let the American people adhere to their peace policy, as the only guarantee for continued progress and prosperity, and avoid, at almost any sacrifice, except that of national honor, being plunged into all the disasters and horrors of modern warfare, which are fearfully increased to what they were in former wars.

[By the latest accounts from Paris, the Emperor, who had just narrowly escaped assassination by a pistol shot from an Italian, had again postponed his tourney to the Crimea.]

Editor's Table.

THE appearance of the above engraving on this page requires a word of explanation. We had procured for the UNITED STATES MAGAZINE, a series of twelve beautiful engravings, one for each month in the year, representing the twelve signs in the zodiac, as the good old almanacs in the days of our boyhood used to present them, in very striking pictures, with the Latin and English names duly annexed, viz.: Aries, the Ram—Taurus, the Bull—Gemini, the Twins—Cancer, the Crab—Leo, the Lion—Virgo, the Virgin—Libra, the Scales—Scorpio, the Scorpion—Sagittarius, the Archer—Capricornus, the Goat—Aquarius, the Water-bearer—Pisces, the Fishes. This series of cuts was commenced in the January number; so that four of them have already been published.

The magazine has heretofore been published on the middle of each month, but now in commencing the second volume, we have concluded to change the time of publication to the first of the month. We therefore had to throw the present number back a couple of weeks from the usual date, to the first of May, or forward a couple of weeks to the first of June. As a matter of convenience we adopted the latter course, and commence the second volume on the first of June. This will not make the slightest difference in the account of any subscriber, for each one will receive his twelve successive numbers for the year, no matter what number he may have commenced with.

This change of date makes the May number the last instead of the first number of the second volume. But we were not willing to deprive our readers of the engraving for May, the sweet Twins, and have therefore given it a place on the editorial page.

THE PRESENT NUMBER.—As the reader has it already before him, we need not say much about it. We try to furnish wholesome and substantial food for those who choose to sit down at our humble table, rather than cater to a sickly or diseased appetite. And though the present number may not have quite so much variety, as we generally aim to supply, we trust, with the "Wheat" on the first page, the "Chaff" on the last, and the various "fixins" that intervene, the reader may be able to make a comfortable meal. We hope the wheat article will prove valuable and instructive, as well as interesting, to farmers and others who take an interest in agricultural subjects. It was got up with much labor and no small expense. We had the engravings made expressly for the article at a cost of nearly a hundred dollars. We should think any farmer in the country would gladly pay the price of the magazine for a year for the sake of getting that article.

The post-office article contains more valuable information on postal affairs in this country and England than we have seen anywhere else embodied in the same amount of space.

The article on Tom Paine is written with great ability, and cannot fail to be read with unusual interest.

The portraits and sketches of Arnold and Andre have a permanent historical interest, and Brady's Leap and Butler's Ride add to their historic interest a spice of romance.

Our correspondent, "Nereus," appears again in the present number, with some verses of deep and delicate thought and fine artistic finish. And our fair correspondent, "Xenette," also in the present number furnishes a noble song, or ode, in honor of "Labor."

Our young friend and coadjutor, "Democritus, jr.," finds his page open to him this month, and spreads himself accordingly. But, gentle reader, take hold and help yourself to what you like best.

BACK NUMBERS AND ODD NUMBERS.—As we now have electrotype plates made of each number and page of the magazine, and are having the first volume also re-set and electrotyped, we can always furnish full sets from the commencement of the work, or any odd numbers that may be desired. We are ready to supply orders for the first volume, handsomely bound, at the low price of one dollar and a half a copy; and we believe it would be difficult to find a work of so much interest and value anywhere else for the same money.

THE PAPERS FOUND IN MAJOR ANDRE'S BOOTS.—As curious relics of our revolutionary history, we have annexed to the brief biography of the unfortunate Major Andre, in the preceding pages, a copy of the papers which were found in his boots at the time of his capture. Colonel Beekman, of Flatbush, Long Island, a grandson of Governor George Clinton, had in his possession a large number of trunks of old papers and documents of the revolutionary times. Among these the original papers found in Andre's boots were discovered, some ten or a dozen years ago. They were procured at the time and published by the "New York Herald." We copy the whole series of the thirteen papers, except an elaborate table of figures, showing the different kinds and distribution of ordnance, etc., at the various forts and batteries of West Point, on the 5th of September, 1780.

A WORD TO OUR FRIENDS OF THE COUNTRY PRESS.—We are under very great obligations to our friends of the press in all parts of the country, for the very numerous and highly complimentary notices they have given of our magazine. We could not ask for greater praise than they have bestowed upon it, ranking it, as they do by general consent, as the best magazine for the price there is published, and some doing us the honor to call it the best magazine in the country, regardless of price. But we have one little word of complaint to bring, even against our friends of the press. It is a want of care on their part, in copying articles got up expressly for this magazine, to give us due credit for the same. The incidents in American history, with original engravings, are both writen and engraved at large expense, expressly for this mag

azine. And yet we notice that many of the articles go the rounds of the papers without any credit whatever. And the same also with regard to some other articles.

THE GREAT MONOLITH AT ST. PETERSBURG.—Our engraving on the tinted leaf in the present number represents the *Hotel de l' Etat Major*, or the War Department at St. Petersburg, together with the remarkable column erected to the memory of Alexander the First, said to be the greatest shaft in a single block that has been erected in modern times. This shaft is upwards of eighty feet long, and is computed to weigh more than four hundred tuns. It is of red granite, standing on a pedestal of the same material twenty-five feet high. The capital, statue, and cross on the top, raises the height to about a hundred and fifty feet.

AN article on the New York City Schools, in consequence of the extent of other articles, is necessarily postponed till our next.

THY STAR OF LOVE.

BY NEREUS

Thy love should be a cheerful thing,
Made up of sunny hours,
As joyous as the gushing spring,
As fragrant as the flowers;
And every thought or hope should be
Attuned to sweetest harmony.

The beauty of a perfect life
Should not be marred by tears,
Though human destiny is rife
With sorrows, struggles, fears;—
But such, whate'er my fate may be,
I trust may never come to thee.

The holiness of Nature dwells
Eternal in the heart;
And in its every voice it tells
Our highest human part.
If joy dwells in the better spheres
This should not be a life of tears.

I would not have thee think that earth
Holds little hope in store;
They are not of the greatest worth,
The things which we deplore;
True happiness from simple things,
Like fragrance from the floweret, springs.

A true heart cannot make nor mar
Its destiny on earth;
Unerring as the eternal star
It follows, from its birth,
Its duty, through life's varied years,
But never with repining tears.

Thy star beams with a happy ray,
Fair as the stars of Night;
And though a cloud is there to-day
Its future all is bright;
Then ever through *thy* future years
May star-smiles banish clouds and tears.

NEW YORK, *May* 13*th*, 1855.

A GREAT BOOK FOR THE PEOPLE.

"*The American Portrait Gallery*" has been laid on our table, just as we were closing up the present number of the magazine, and had no time or space left for a proper notice. We must, however, make room for a brief remark. The magnitude and value of this book, compared with the price, constitute one of the wonders of bookmaking. It is a large octavo volume, of nearly eight hundred pages, elegantly printed on fine white paper, and containing nearly three hundred and fifty *portraits* of eminent and distinguished persons—mostly Americans—from the time of Columbus to the present day, each portrait being accompanied with a brief well-written biography of the individual. Great pains have been taken to obtain the best possible likenesses of the originals, and the portraits have been drawn and engraved with superior artistic skill, and all expressly for this work. This imperial volume, in superb gilt binding, is sold for the remarkably low price of THREE DOLLARS, with a large discount to agents who engage in its sale. Published by J. M. Emerson & Company, at the office of the UNITED STATES MAGAZINE, No. 1 Spruce Street, New York

PROFESSOR AGASSIZ AND HIS WORKS.

[PERHAPS it is not too much to say that Professor Agassiz, is the most able and learned *naturalist* now living. He is a native of Switzerland, and a citizen of the United States, but he belongs to the world. It is a matter of congratulation, however, to Americans, that he has determined to make this country his home during the remainder of his life, which is now only in its bright meridian. He believes this continent affords him the best and most complete field for his scientific pursuits, and he will not abandon it for any position of honor or emolument offered him in Europe. Through the liberality of Hon. Abbot Lawrence he receives, we believe, three thousand dollars a year, as Professor in the Lawrence Scientific School, attached to the University of Cambridge, and endowed by that princely merchant of Boston. We have seen it stated recently that Professor Agassiz has been offered ten thousand dollars a year to take a position in one of the English universities, which he has declined. The following brief, but interesting notice of the Professor and his scientific labors, we find in the "National Intelligencer."]

A RECENT honor has been conferred upon this distinguished naturalist, in the award of the first *Cuvier Prize* by the Academy of Sciences in Paris.

Soon after Cuvier's death a subscription was raised for the erection of a monument to his memory, which produced a larger sum than was expended for that object. The surplus was placed in the charge of the Academy of Sciences in Paris. This was to accumulate until it should produce a certain amount, which was destined to commemorate the name of Cuvier in a different way, by granting the income every third year to the author who should, during that interval, most contribute to the advancement of either zoölogy or geology. The first prize, however, was not to be awarded until twenty years after Cuvier's death. And it was then to be given to the author who should have fulfilled the conditions required by the foundation for the whole of that period.

The following extract, translated from the COMPTES RENDUS of the Academy, will show in what manner the first prize has been awarded:

"Many works of a superior order have appeared within the last few years upon these two sciences. Among these the commission has given a decided preference to the work of Mr. Agassiz on 'Fossil Fishes.'

"This work, immense in its details, is likewise distinguished by a vast and strong conception, and by sustained and elevated views. Moreover, the commission has not forgotten the flattering encouragements which the author received from Cuvier himself, and the kind of mission which seems to have been imposed upon him by the great naturalist to complete the *Paleontology of Vertebral Animals*—a noble mission, which has been most successfully filled.

"The *Cuvier Prize* is therefore awarded to the work of Mr. Agassiz, entitled *Recherches sur les Poissons Fossiles.*

The chief merit of this great work is its originality. It embraces an almost unexplored region of science, in which little had been done by the labors of others. The author's investigations were mainly directed to specimens which had not before been scientifically examined; and the difficulties to be overcome, even in the preparation of such an enterprise, will appear from the fact that these specimens were displayed in more than sixty different cabinets in various parts of Europe.

It may well excite our surprise that, while this work was in progress, several others of scarcely less value in the various departments of natural history the result of profound research and elaborate investigation, were produced by the same author. Among these may be enumerated the Natural History of Fresh Water Fishes of Central Europe, four separate treatises on the various classes of Fossil and Living Shell Fishes, and another on the Fossil Fishes in the old Red Sandstone of Great Britain and Russia. All these works are accompanied by numerous engravings drawn from original specimens, and executed with great beauty and exactness.

To these may be added two other works of somewhat different character, indicating prodigious labor and most comprehensive knowledge of the science to which they relate: First, the zoölogical nomenclature, being a systematic catalogue of all the names of the genera of animals, living and fossil, which have been introduced into the science of natural history. The whole number of genera thus classified amounts to more than seventeen thousand. In this catalogue the author by whom each name was given, and the date of the publication in which it is mentioned, are indicated, and the etymology of the name is defined. Second, a Bibliographical Description of all the publications on Natural History which have appeared from the time of Aristotle to the present day, comprised in four large volumes. Both these works are of inestimable value to students devoted to any of the branches of natural history.

In the midst of these laborious achievements Agassiz found leisure to pass weeks for several successive summers in the recesses of the Alps, studying from personal observation the phenomena of the *Glaciers*, a subject which had occupied many able pens and produced ingenious theories. The results of his researches are given in two volumes on the Glaciers of the Alps, illustrated by accurate drawings of some of the most remarkable glaciers, exhibiting their forms, progressive changes, and peculiar and varied appearances. This work was received with much applause in Europe, as comprising a series of new and exact observations, as presenting original views and deep philosophical deductions, and especially as unfolding what the author denominates the *Glacial System.*

During the last seven years Professor Agassiz has been a citizen of the United States, holding the office of Professor of Natural History in Harvard University. Tempting offers have been made to him from eminent institutions in Europe with the hope of obtaining his services and the influence of his name. These offers he has declined, and resolved to devote his future life and labors to his adopted country. Since he has been here, the same ardent zeal, the same

energy of purpose, strong love of research, and unwearied activity which marked in so conspicuous a manner his previous career, have been exercised in studying and advancing the natural history of America. He is thus engaged in exploring a new field, with the signal advantage of his eminent attainments and large experience already acquired in the old world, all conspiring to facilitate his present pursuits and to crown them with success.

It is understood that he has now in the progress of preparation, as the fruit of his researches in the natural history of this country, materials sufficient for ten quarto volumes, to be entitled "Contributions to the Natural History of the United States," and that the first part may be expected soon to be ready for the press. Such a work, from such a source, relating wholly to America, will be not less honorable to the country than to its author. It will diffuse a knowledge of American science, and contribute to elevate it in public estimation wherever intelligence and learning are considered as an index of intellectual culture and progressive civilization. A work of this kind must necessarily be expensive, by reason of the illustrative engravings which it requires, yet it can scarcely be doubted that, from patriotic feeling, it will meet with a generous patronage from the intelligent and liberal-minded generally, as well as from those who are specially interested in scientific inquiries.

THE LAUGHING PHILOSOPHER.

CHAFF,

THRASHED OUT FOR THE UNITED STATES MAGAZINE, BY DEMOCRITUS, JUNIOR.

The No-Nothins is the growinist party that ever got root in this country. It grows faster than Jack's bean, that got so high by the third morning that Jack could n't see the top of it. It grows faster than Jonathan's punkin vine, out on the western prairie, that in five minutes after it got cleverly up out of the ground, started off at a dog-trot for the far west, and in fifteen minutes was goin it full chisel, runnin like a streak of chalk; and Jonathan mounted his hoss, and rid off upon the gallop to see where it was goin to. He rid day and night, and the third day he found the punkin vine began to lag, and at last he come up with it, and found it was brought to anchor by growin a monstrous great punkin, half as big as a meetin-house.

It's been only two years since the No-Nothin party took root, and now its branches are running all over every State and Territory of this great country, and Californy besides, going about everywhere like a roarin lion seekin whom it may devour. It commonly swallows down some large city for breakfast; then takes a walk into the country and does up a few broad counties for dinner, and at night gobbles up a half dozen fat villages for supper. No wonder No-Nothinism is growin fat and large. It is a high liver, and a fast liver. It lives like an alderman, and takes late suppers, devourin broiled Irishmen for broiled oysters, and mincin up an Arch-Bishop for mock-turtle soup. Who would n't grow fat on such a livin? Once in a while it starts out on a regular bust, and then a whole State has to go for it. Then the old Bay State, Plymouth Rock and all, is swallowed at a gulp, and Cape Cod thrown in for sass. There 's no overloadin the stomach of No-Nothinism; it swallows New Hampshire and its everlastin granite hills, and Gineral Pierce on top of 'em, and the whole dose sets as easy on its stomach as a cup of soft custard. It puts little Rhody in its pocket to keep for a tit-bit between meals. It marches over the land with giant strides; Sewardites flee before it, and the Wise men of old Virginny tremble in its presence. It will soon be seen ridin straddle on the Rocky Mountains, with New York City for one stirrup and San Francisco for t'other. The Mormons better stan from under, or they'll be "crushed out."

But now about the next Presidency. No-Nothinism is sure to have it, if it don't split in tu. But there 's the rub: it may split in tu, or die of a surfeit. It is such an everlastin gormandizer, that there seems to be some danger of its splitin from mere fullness. But that is n't the greatest danger. It takes in so many things into its stomach that don't agree well together, that there is a good deal of danger of bringin on a sour stomach that will make it throw up, or else gettin filled up with some sort of a gas that will go off with spontaneous combustion, and split the whole thing in tu, throwing one half into the Atlantic Ocean, and the other half into the Pacific. You can sometimes mix ile and water if you use soft soap enough; but there is some things that grow on the two sides of Mason and Dixon's line that all the soft soap in creation could n't mix. To try to mix such things would be like tappin the ocean and letting it into the burnin mountain of Vesuvius; it would create a *sensation*. The ocean or the mountain would have to back out. A few sprays thrown up from the northern ocean have already fallen on the southern volcano out there in Kansas, and have made sich a sputterin as ought to be a caution to No-Nothinism what it takes into its stomach, if it don't want to be blowed up like a powder mill and scattered to the four winds.

But, as I said afore, if No-Nothinism dont split, it 'll carry the next Presidency. And it is thought there will be no very great difficulty in finding somebody willing to take the office. If commodore George Law wont take it, may be commodore Vanderbilt will. And if he wont, may be Gineral Sam Houston could be persuaded to take it. And if he couldn't be persuaded, may be some one among their twenty fellow-candidates could. But if they all decline, it will be the duty of the twenty candidates to form a joint stock company, and take turns fillin the Presidential chair, week in and week out. For we must have a President some how or other. The country would be as bad off without a President as a toad without a tail, every bit and grain. And some folks think the country has run a pretty narrow chance of gettin into that forlorn predicament, for they said the old Whig party was dead and buried, and the old Democratic party was all split up into flinders, and what should we do for a President? But, luckily, No-Nothinism is wide awake, and alive and kickin, and there's hopes of the country yet.

No-Nothinism looks out sharp for the nunneries and convents, and is pretty sure to find out what's goin on there. The legislature of the old Bay State sent a No-Nothin committee to look after a little nunnery school in Roxbury. And they went and rummaged carefully, high and low, but they couldn't find nothin. Howsomever every body said 'twas a great occasion, if they couldn't find nothin, so the "Boston Atlas" celebrated it in the following ode:

Goosey goosey gander,
Where shall I wander?
Up stairs, down stairs,
In a lady's chamber;
There slept a lady,
Under the clothes:
In popped a Senator,
With a long nose.

Out popped the Senator—
Solemnly he swore,
Such a sleeping beauty
He never saw before.
When a pretty little nun
Is lying fast asleep,
A native born American's
Entitled to a peep.

But though the Massachusetts No-Nothins didn't find nothin, the New York No-Nothins did; for while the Massachusetts No-Nothins hunted the poor nuns, the New York No-Nothins hunted the rich Archbishop. And the huntin went on somethin in this way:—

Senator Brooks. Mr. Archbishop, you are gettin an awful sight of church property into your own individual hands. We No-Nothins aint agoin to stan this. It's gettin to be dangerous to our republican institutions, and we are agoin to put a stop to it. Your property must be worth pretty near five millions of dollars.

Archbishop. It's a lie, sir. I aint worth a stiver in the world—nothin but my library, and a *part* of the furniture in the house, and the bed I sleep on; that's all. I don't own the roof that shelters me. I'm a very poor man, sir.

No-Nothin Senator. But, my dear sir, will your reverence jest please to look here; look at these records. Here is an immense amount of property all deeded right out straight to you and your heirs for ever, as strong as the law can make it. Here, sir, count 'em up; there is over a hundred lots of great value deeded to you here in the City of New York.

Archbishop. It's a lie, sir; there isn't but seventy-one lots; count 'em up for yourself.

No-Nothin Senator. But, my dear sir, here's a nest of very valuable lots up town, that you've omitted. These will swell the list up to pretty near what I said. Please to count these, sir, for they also belong to your property.

Archbishop. It's a lie, sir; they are not my property, and they never was deeded to me.

No-Nothin Senator. [Puts on his spectacles and looks again.] Oh, I see how 'tis; they are *leased* to you, and not deeded; and the lease runs for "nine hundred and ninety-nine years," and you are payin one cent a year rent for that princely amount of property. It is true there is some difference between tweedle-dum and tweedle-dee; but unless you are goin to live a good deal longer than old Methuselah did, I dont see but you are about as well off with the lease as you would be with the deed.

Archbishop. You are "a vile insect," and I take you "with covered hands" and throw you out of the window.

No-Nothin Senator. But the "vile insect" will still buz, and if you aint pleased with the tune you shouldn't have meddled with him.